DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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THE FARM IN DECEMBER.

"Have mercy, winter!—For we own thy power."

This is the season of dreary and gloomy weather. The sun rises late and sets early; noon treads upon the shades of night; the sun drops suddenly low far south of west, and before we are ready for it, sinks out of sight, when the chill air and gathering darkness soon drive us from the field.

It is now winter. The reptiles and other creatures that sleep or hide during cold weather, have retired to their winter quarters; the field labor of the farmer is considerably arrested. The trees look but like skeletons of what they were, and as Shakspeare said, are but

"Bare ruined choirs in which the sweet birds sang."

The evergreens now have a new beauty and value, and are particularly observed, while the winter flowers are looked upon as real friends. We turn to the conservatory, or even the small collection of parlor plants, with new interest and pleasure, and cultivate them with tender care.

But gloomy as is the approach of this season, "winter is not the death of nature, neither is it merely the season of nature's sleep, after the labors of the vegetable world are finished. It is much more. It is the season of gestation, when nature is preparing in her womb the embryo of the coming year. A thousand secret operations are in progress, by which the seeds, buds, and roots of future plants and flowers are not only preserved, but elaborated, that when the prolific months of spring arrive, they may burst into life in all the freshness and vigor of a new birth." The winter weather has also a most important agency in other respects. During spring, summer and autumn, fertile soils by capillary attraction absorb and retain water for the support of their produce; during winter a portion of this water at the surface of the soil freezes, and by its expansive force thrusts the individual particles apart, and so hold them, apparently, as solid clods of earth; but as the warmth of spring returns, the icy cement dissolves from its interstices, the clods crumble down so minutely divided as materially to lessen the labor of the husbandman in preparing the soil for seed. So all seasons are important to the production and perfection of the farmer's crops; the severe winter for rest from one class, and activity in another, of operations; the spring with its high winds to sweep off a redundant moisture in the drenched fields, to start the bud and blossom, and waiting grass; the summer with its fervid heat and dewy nights to give breadth and form and substance to the plants, and autumn with its tempered suns and lengthened nights to perfect the whole.

Although the hand of the wonder-working Creator may be distintly traced in unnumbered objects in the winter, yet it is a period when, in comparison with other seasons, there are few objects of interest to arrest the attention. Many of the important and pressing labors of the farmer being ended for the year, it leaves him opportunity for reading, for study, and reflection, and if so disposed, for the investigation of many things which puzzled him during his summer operations, and which he had not the leisure then to examine. But he has given them occasional thought, and now can gather about him such helps as he may command, and in his comfortable home, while fierce winds sweep the deserted hills and vales on their useful mission, seek out the causes and operations of things so that he will find a new interest in his labors when he again enters the fields for their cultivation. Indeed, that interest will be felt when his investigations commence, and will ever be present with him afterwards, whether following the plow, prostrating the grain or grass, or mingling in the social relations of life.

Then we have this to say:—Let each hour of this comparatively leisure season be as faithfully devoted to the cultivation of the mind and heart, as the hours of spring, summer, and autumn, have been to the cultivation of the several crops, and contentment and happiness will as surely flow

from your efforts, as the springing corn and waving grain were the consequence of your timely industry in the spring. Turn to the article on winter schools, or more properly, *Schools at Home*, at page 120, of the monthly, and in the weekly *Farmer* of the 7th of February last, and read once more the suggestions offered there. Nearly four months are before you now in which you may find opportunity to turn the current of your thoughts into new and delightful channels, elevate your minds, purify your affections, and prepare yourselves to shed untold blessings ever after upon the world around you. The gain of gold is not all—for what profiteth it a man if he have ample fields, teeming orchards, and bursting barns, with the refinements and elegancies of life, if he have not contentment therewith!

"Honor and shame from no condition rise—
Act well your part; there all the honor lies."

A beneficent Providence has so arranged things that there are duties demanding our attention at all seasons, and among them at this time an important one is to prepare a proper

Shelter for Stock.—We shall barely call attention to this subject now, with the purpose of soon noticing it more particularly. Cold acts as a stimulant to the system, and that is probably why we require animal diet in the winter more than in the summer; flesh supplying the waste occasioned by the cold more readily than vegetables. If, then, the animal is cold, it requires more food, and of a more nutritious nature, to keep up the natural temperature of the body, than when comfortably sheltered. It will, therefore, be found cheaper to protect the animal from the cold than to supply an extra amount of food.

Carrots for Horses.—The stable keepers are beginning to find that these vegetables form a cheap and nutritious food to mix with grain for their horses. It is better to give a working horse a peck of carrots and four quarts of oats or corn meal a day than to give him six quarts of meal.

Feeding Stock.—Owing to the excessive drought last summer, there is a great scarcity of hay and fodder, so that it becomes important that not only shall nothing be wasted, but that the utmost economy shall be practised in feeding out what we have. We therefore recommend the cutting of all coarse fodder, (hay, straw, corn-stalks and shucks,) and mixing with it a little meal of some kind, corn, oat, barley or oat-meal, or shorts, now, at the opening of winter, and thus commence with feeding out less hay than would otherwise be required. Secure to the cattle warmth, clean and loose skins by the frequent use of the card, and you will be able to take each animal through the winter in good condition, with some ten or fifteen hundred pounds less hay than they have been accustomed to consume. Where wood is cheap great advantage may be derived from cooking most of the food fed out. Hay steamed with the grain, would undoubtedly answer the desired purpose with a considerable less quantity than if fed in an uncooked state. All kinds of feed given the store swine should be cooked.

Young animals must receive careful attention. If stinted in food and exposed to the elements, they will scarcely ever assume those full, plump, and handsome proportions so desirable, do what you will for them afterwards.

Poultry and Eggs.—Fowls like the warm southern aspect, where they can huddle together in the sun during the middle of the day. Provide them such a place, and plenty of food, such as corn, barley, wheat, cob-meal, mixed with scalding water or hot potatoes, with occasional feeds of the flesh of young calves, plucks of sheep, and constant access to pure water, gravel, old mortar, oyster or clam shells and bones, all broken finely, and they will yield eggs in abundance through the cold weather.

Preserving Winter Apples.—Keep them in a moist cellar and at a temperature above the freezing point, but as near it as possible. These are some of the suggestions and duties appropriate to December, and close our remarks of this character for the year.

If you have followed us, kind reader, in this "Mirror of the Months," which we have presented,—a dim mirror though it may be,—and have found as much pleasure and profit in reading as we have in the writing, we shall feel that our labor has not been in vain.

For the New England Farmer.

WHY BEES DIE IN WINTER.

Mr. Editor:—As a correspondent writing some months since in the *Farmer*, over the signature of "A Subscriber," desires to know the cause "why swarms of bees so frequently die in winter, and sometimes in other seasons of the year, without any apparent cause," and as I have had fifteen years experience in keeping bees, I am thinking it may not be amiss to give my views on the subject. From experiments and observation, I am satisfied that *cold* is the cause of swarms of bees dying, where plenty of honey remains in the hive. Evidence of this is found in the fact that it is more frequently the case, that small swarms (those of few in number) die in winter, than large swarms; the consequence of there not being sufficient animal heat produced in the hive to keep out the frost, or the honey sufficiently warm. And as the animal heat produced, (sometimes called the breath of bees) ascends to the top of the hive, making that part of the hive warmest, the bees also ascend or cluster close in the top; but after they have eaten all the honey in that part of the hive which they occupy, they make a move for more, which is generally once a day, and by the latter part of winter they must descend to near the bottom of the hive for honey; after which they ascend to the top again which is warmest; but as the weather

continues cold, and the honey which remains is more distant from the bees, the comb is found so cold that it cannot be uncapped by them, and so covered with frost that a portion of the bees run about the hive as though to find some new way to get at the honey, when they become chilled, and fall to the bottom of the hive, where a greater degree of cold prevents their making another move; and thus they daily decrease in number, until they become so much reduced that the remaining few are found chilled or frozen in the cells.

I have noticed that where bees die of this predicament, the cells (in a portion of the comb) instead of being uncapped, are cut through at the sides, as a last resort; this I have noticed is the case with young swarms only, as in such hives the comb is thinest and softest. But bees seldom live when brought to this great strait. To prevent them from dying from this cause, is simply to protect them better from cold. Bees sometimes die from this cause by the first few weeks of freezing weather, if they are very few in number and are much exposed to cold. The most effectual and cheap plan of protecting bees from cold, is to make a box of rough boards, 4 or 6 inches larger each way than the hive, without top or bottom, cut a corresponding opening with the door or entrance of the hive, place this over the hive and fill between this and the hive with straw and also on the top, to the height of the box, then put a board over this with a weight upon it. J. Ide.

East Shelby, N. Y.

MR. FRENCH'S ADDRESS.

We have been favored with a perusal, in manuscript, of an Address delivered by our Associate Editor, Mr. French, before the York County Agricultural Society, at Saco, Me., in October last.

Under his description of "the peculiar position which Woman occupies in New England Society," we make an extract, and under that of "Washing Day, another, being all we can find room for at present. We have no hesitation in saying that the Address is one of the three best we have ever seen. When the reader has perused the extracts below, he will be glad to see more of it.

Look, for a moment, at the condition of a majority of the wives of respectable farmers, aye, and of men of all other classes in your own county. What are the duties, which, by general consent, devolve upon them!

What do *you*, sir, and *you*, expect of the lady who presides over your household! Did you ever consider for a moment, how many and various and constant are her cares and trials!

You are, perhaps, an amateur farmer; you have, like a true and thriving Yankee built a large and elegant house—not so much because you need it, as because your neighbors live in fine houses.—And, besides, you are a growing man in the world, and have been Representative to the Legislature, and are *liable* to go to Congress, or be President of the United States. There is no knowing what may not befal you, and it is well to keep up appearances in the world, and be ready for any honors that may be thrust upon you.

You have a large family of children, and they are all to be educated, and of course have no time to *work*. Your boys must be fitted for college, and your girls must be taught music, and French, and drawing, besides the common branches of learning. Your wife is expected to see that your elegant house and furniture are kept in order—that the children are kept neat and orderly, at all times. You have a fancy for Devon and Ayrshire and Short-horn cows, and perhaps exhibit them at the Annual Fair, and your wife must take interest enough in your affairs to look well to the dairy.

You have a great propensity to clear up swamps, and build stone walls, and improve your farm, and your kitchen is filled with *hired men*, and nobody but your wife knows what to get for breakfast, dinner or supper for them or the family.

Then you are a generous, hospitable sort of fellow, and often invite your friends from other towns, whom you happen to meet, home to dine, and your wife is relied on, to do the thing up handsomely, for the credit of the establishment; and, although the three youngest children have just had the whooping cough, and have kept her awake half the nights for the last month, the amiable lady is expected to appear at the table, dressed like the wife of a gentleman, as bland as a moonbeam, and play the agreeable to your guests, with the same matronly grace, as if she had passed the whole morning over her books and music.

You expect to see your breakfast upon the table punctually at the hour, and the children washed and neatly dressed in their places, at the table. You expect to see the table handsomely laid, and the food properly cooked and served up. You expect the good lady to be ready and at leisure, at all times, morning and evening, to receive calls of friendship or ceremony, and especially those of your own friends.

You expect to find your wardrobe always in perfect order, with no button or loop or string missing. If a child is ill, there is nobody but the mother to watch over it by night or by day, and the depressing, never-ceasing solicitude, and exhausting offices due from a mother to her *infant*, can be delegated to no other.

In short, sir, you expect your wife to be at the same time cook and chambermaid, lady and serving girl, nurse and sempstress and governess, laundress and dairymaid.

At length, you see, with a sad heart, that her eye is losing its lustre—that her form is becoming daily more frail—that the elasticity of her spirits is gone, and at last the thought, the sickening, crushing thought is forced upon you, that she, whose *youthful* image, radiant with health and happiness, has never passed from your heart—she, who alone has remained to you true and constant, through sickness and health, in trials and prosperity—she, the mother of your children, who has so long been about you and your pleasant household, like a good angel, doing all kind offices for you and your loved ones—she who is more to you than all the world beside—*may die*.

And now, perhaps, an effort is made to relieve her, and changes are effected in the household arrangements—and housekeepers and servants are procured; the daughters are called on to aid in the domestic affairs, and the grand schemes of improvement are suspended and no company is invited. But it is all in vain. The hectic flush is on her cheek, and sorrow and fearful forebodin sadden every heart.

For a time, almost like a pure spirit from the realms of bliss, she glides about from room to room, still watchful for the comfort of others, and forgetful of self.

But, I will not attempt to fill up the picture, and trace the sure decay of strength and beauty and life by slow consumption. At length "*there is rest in Heaven.*"

Have I exaggerated the trials of a New England wife? I wish it were true that no one of us could call to mind an original, from which my picture might have been drawn! I wish it were true that no one of us were conscious of past thoughtlessness, or unreasonable exactions, by which an undue portion of life's burdens have been cast upon the sex least able to bear them.

* * * * * * *

Washing-day is a day in the calendar to be remembered—a day when woman reigns supreme—*runs* in more senses than one—a day which furnishes an excuse for *cold coffee*, and a *picked up* dinner—a day when every woman claims as part of her prerogative, to wear her hair in papers and scold, and even "Kick the wee stools o'er the mickle," if she feels in the humor—a day when the goodman of the house is brought fully to appreciate his own littleness, to feel that he is but as a grasshopper in the sight of any woman, armed with a mop or waterpail.

And this noted and justly celebrated day comprises *one-seventh* of a man's life, and he who has reached his *grand climacteric* has lived through *nine whole years* of washing days, a consideration as terrific to the young householder, as it is consolatory to those in old age, who believe that the trials of this world are to be deducted from the discipline of the next.

From the importance of this subject, involving, as it does, one-seventh of all our earthly happiness, one would suppose that philosophers and statesmen, laying aside their other schemes for the amelioration of man's condition, would have devoted themselves exclusively to the abolition or mitigation of washing days.

"But the world has gone on," as Dickens has remarked, "and revolved round the sun, and turned on its own axis, and had lunar influences, *and various games of that sort*," and washing days have come and gone, and the human race has rather increased than lessened in numbers, and men have settled down upon the idea, that the trials of that dreadful day, like the existence of sin on earth, are to be reckoned among the inscrutable dispensations of Providence, to be patiently endured, with such courage as we can put on for the occasion.

To be sure, like old father Adam, in the garden, men are prone to charge this evil, like all others, upon the *woman*, and I propose, by way of illustrating my subject, to bring the question directly before the appointed tribunal, whether the worst trials of washing day, like most others of domestic life, are not fairly chargeable upon the want of proper attention and foresight on the part of the *men*.

And I charge upon our prisoner, in the first place, that he and the large class whom he fitly represents, have not made suitable arrangements for the convenient supply of the two essentials of housekeeping—*wood* and *water*.

Your *wood-house*, sir, is not near enough to your *kitchen*. Your wife is obliged to go out of doors in summer and winter, to reach it—perhaps to go down a flight of steps, and bring her wood up.—Often she finds no dry fuel of suitable kind cut and split for use, and you would be ashamed to have it known, how many times she has taken the axe into her own hands to make up for your negligence.

And then the *water*—we have all seen it again and again, and you cannot deny it. Instead of having a cistern of soft water, with a pump in your wash-room, or an aqueduct leading into your house, you have, year after year, depended on a well of hard water, *five rods* off, with a well post that leans hard to the east, and a sweep loaded with old *cart boxes*, at one end, and a crooked pole and leaky bucket at the other, and the girl whom you took young and blooming from her home, and vowed to love and cherish, goes there, day after day, and year after year, and draws water for her household!

And, again, what sort of a *washboiler* does she use? Is it nicely set in brickwork, in a convenient place for use, or does she hang a big kettle on the crane, half the length of the house from her wash bench, or is she, for want of a better, compelled to use a half-sized tin boiler on the cook stove in dog days?

And where is her *clothes line?* Have you provided, in some sunny spot, sheltered from the winds, one of the rotary frames lately introduced, on which the whole wash may be hung by a woman in a few moments without moving her basket, or have you some convenient out-building, where the line may be kept always stretched, without being slackened by the weather?

No such thing, sir. In the first place, the line is not half long enough, for you never have returned the piece you borrowed to tie up your broken wagon shaft, and you never paid any attention to the oft-repeated, quiet suggestion, that things were not exactly convenient for drying the clothes, and so the females of your household, after working in a hot room over hot water, half the day, must *find a place* to dry their clothes as best they can. And we all know how it is done, for we see it every Monday of our lives.

The line is first tied to the old *well post*. It is then carried to a *post in the garden fence*, next, a long stretch is made to the *old sweet apple tree*, and a turn taken round one of its principal limbs—then round the latch of the wood-house door, and lastly back to the *well post* forming an irregular parallelogram, with the longest sides supported by the long-handled pitchfork and the rake borrowed from the barn for the occasion!

And now, what says the accused to our charges? It will avail nothing to set up *poverty* in his defence, for as has been truly said, "no man is so poor as to be obliged to have his pigs-trough at the front door," and we may add, no man is too poor to split his own firewood, and bring the water to wash with.

And so he may as well plead guilty, and save our jury the trouble of a verdict, and henceforth, we will charge a fair proportion of the trials of washing-day upon the neglect to provide the best possible conveniences for performing what is at best a disagreeable office in housekeeping.

I have ventured upon this mode of illustrating what I deem, after all, a subject of serious interest, *the busy and careworn life of New England matrons.*

These burdens which bear so heavily upon the wives of our farmers as to constitute a great objection to the choice of agriculture as a business, with any considerate man, result, as we have seen, in part from the want of *servants* or reliable *help*. This difficulty arises legitimately from the principles of equality, inherent in the constitution of our government, and which we should not seek to change.

But this is by no means the whole secret of the trouble. Much of it results from causes which lie within our own control, to some of which allusion has already been made, and others may readily be named.

A RARE AND INTERESTING BOOK.

"MARKHAM'S FAREWELL TO HVSBANDRY, or The inriching of all sorts of Barren and Sterile grounds in our Kingdome, to be as fruitfull in all manner of Graine, Pulse, and Grasse, as the best grounds whatsoeuer: Together with the annoyances, and preservation of all Graine and Seede, from one yeare to many yeares. As also a husbandly computation of men and cattels dayly labours, their expences, charges, and vttermost profits. For the bettering of arable pasture, and woody grounds: Of making good all grounds againe, spoiled with ouerflowing of saltwater by sea-breaches, as also the inriching of the hop garden, and many other things neuer published before." Such is the promising title. The book was printed at London, in 1623, *two hundred and twenty-seven years ago*.

Under the same covers there are four other books showing that the "old 'uns" knew something about farming as well as other things. Here is one entitled "A New Orchard and Garden, with the Country Hovsewifes Garden for herbes of common vse. As also The Hvsbandry of Bees, with their several vses and annoyances, all being the experience of 48 yeeres labour." This is illustrated by rude engravings of buildings and grounds about them, of planting and trimming trees, kitchen and flower gardens, bee houses and hives, and the notes of music describing the songs which the bees hum out at various times.

But the queerest title of all the five books is the following:—"Covntrey Contentments, or The English Hvswife. Containing The inward and outward Vertues which ought to be in a compleate Woman. As her skill in Physicke, Surgerie, Extraction of Oyles, Banqueting-stuffe, Ordering of great Feasts, Preserving of all sorts of Wines, Conceited Secrets, Distillations, Perfumes, ordering of Wool, Hempe; Flax, making Cloth, Dying, the knowledge of Dayries, office of Malting, Oats, their excellent vses in a Family, Brewing, Baking, and all other things belonging to an Household.

A work generally approved, and now much augmented, purged and made most necessary for all men. London: 1623."

In addition to all the wonderful things set forth in the title page, Mr. *Gervase Markham* invades the kitchen, the nursery, and medicine chest, and sets forth the peculiar duties of the housewife in a great many particulars. We cannot resist the temptation to give one or two short extracts—and first, this—

SHEE MVST BEE TEMPERATE.

Next vnto this sanctity and holinesse of life, it is meete that our English Hous-wife be a woman of great modesty and temperance as well inwardly as outwardly; inwardly, as in her behauiour and cariage towards her husband, wherein she shall shunne all violence of rage, passion and humour, coueting leese to direct then to bee directed, appearing euer vnto him pleasant, amiable and delightfull; and though occasion, mishaps, or the misgouernement of his will may induce her to contrarie thoughts, yet vertuously to suppresse them, and with a mildo sufferance rather to call him home from his error, then with the strength of anger to abate the least spark of his euill.

OF HER GARMENTS.

Let the Hus-wifes garments be comely and strong, made as well to preserue the health, as adorne the person, altogether without toyish garnishes, or the glosse of light colours, and as farre from the vanity of new and fantastique fashions, as neere to the comely imitations of modest Matrons; let her dyet be wholesome and cleanly, prepared at due howers, and Cookt with care and diligence, let it be rather to satisfie nature then our affections, and apter to kill hunger then reuiue new appetites, let it proceed more from the prouision of her owne yarde, then the furniture of the markets; and let it be rather esteemed for the familiar acquaintance she hath with it, then for the strangenesse and raritie it bringeth from other Countries.

The whole subject of agriculture in all its various branches, is thoroughly treated in these curious books. We have preserved the ancient style of spelling and using capitals.

For the New England Farmer.

WHAT IS THE BEST METHOD OF PRESERVING CELERY?

MESSRS EDITORS:—As celery is a vegetable which but few cultivate, and fewer still, I believe, properly appreciate, and as it always commands a high price in the market, especially in the winter and spring, it becomes an important practical question, how it can be best preserved. Some cultivators recommend placing it in water in the cellar. Others advise to bury the plants in dry sand, and others still, in rich loam. Having tried some of these methods, and not with satisfactory success, I wish to elicit the results of the experience of other cultivators of this very great luxury for the table. If some of your numerous and intelligent correspondents, or yourselves, will favor the public with wisdom on this point, one of your constant readers, and many others, I presume, will be thankful. D. C.

Waltham, Nov. 19th, 1852.

☞ If you have a friend that will reprove your faults and foibles, consider you enjoy a blessing which the President of the United States cannot have.

For the New England Farmer.

IS FARMING AS PROFITABLE AS OTHER OCCUPATIONS?

Almost any person at first thought is ready to answer this inquiry in the negative, and such would seem to be the just conclusion of an individual, witnessing the routine operations of the farmer, toiling day after day, and year after year, without making any perceptible headway, and frequently finding it difficult to determine which exceeded, whether it be his imports or his exports.

Let the same individual turn to the mechanic—whether it be the tailor, the shoemaker, the carpenter or the blacksmith, and ask himself if the mechanic appears happier, fares better, lives easier, grows rich faster, or has better health than the farmer. Again, let him turn to the mercantile community—there he beholds gorgeous palaces, decorated with all the beauties which architecture can bestow; the floors covered with rich webs of Brussels carpets and trod by slippered gentlemen and silk and satin-clad ladies; he is ready to exclaim, *trade* is profitable, and he would willingly enlist himself in the enterprise under auspices so favorable, but shrinks back when he learns that at least one-half (*a.*) of all who engage in that pursuit become bankrupt, that the liabilities of the lord of this stately palace, are beyond his means—and his paper is not worth a farthing in State or Wall Street.

I am aware that some men drop the mercantile business, take up farming, and fail for want of practical knowledge in the art; this is an exception and goes no farther to condemn the occupation, than would be that of the cobbler against ship-building, because he did not succeed in making a seventy-four frigate.

It is true, the farmer has not much chance for making a fortune in a day, nor of losing one in a night; his business is safe, as well as profitable, generally speaking, if he understands it—not altogether profitable in dollars and cents, but profitable for his health, for which, probably, no other occupation is so good; it may teach him economy, where others might lead to extravagance—it may be profitable for his children, inculcating habits of industry to the youth—while others would predispose them to idleness, dissolution and crime.

But the farmer *can* make his business profitable in dollars and cents—he has only to increase the fertility of his soil to "cause two blades of grass to grow where but one grew before"—he can rear choice breeds of stock, and feed them well—this will augment the products of his dairy—his dairy will increase his capital stock in the hog-pen; he can chequer his farm with select fruit trees, which in due time, will repay all capital invested—and return a higher percentage than any dividends yet declared by the directors of most of the railroad companies. While doing this, he is increasing his capital stock—that is, he is making his farm more valuable, and he is worth the more dollars.

The question has been asked, "what is life without health?" I would ask what are life and health without enjoyment! Who then can claim more enoyment than the farmer; who, more than he, can gratify himself with all the beauties which nature has spread around, so eloquently described by the poets. The sunny slope, the forest glade, the willow-margined stream are all his own—the carol of the blue-bird, the lark and the robin salutes his waking moments, and the lovely whip-poor-will chants his evening lullaby. Yes, there is poetry in farming—the "Peasant Bard" will doubtless agree with me, that it is favorable to the development of poetical genius.

H. F.

Stowe, Oct., 1852.

Remarks.—(*a.*) The number is considerably more than *nine-tenths* in the city of Boston. The above views of farming, as an occupation, are just. "H. F." is welcomed to our columns.

WORCESTER WEST SOCIETY.

The following remarks are a portion of a speech made by Francis Brewer, Esq., at the Worcester West Agricultural Society on the 30th Sept. last. Mr. Brewer is a member of the Massachusetts State Board of Agriculture, and an ardent advocate of progress in the art.

Delegated by that body which the Legislature of our commonwealth has constituted the head of her agricultural interests, I am with you to-day, not in the character of those whom Joshua sent secretly as *spies* to view the land of Jericho, but as a friend and brother; having just severed myself from the enjoyments of our own family festival, that I might present to you the warm right-hand of fellowship and of friendship, from your agricultural friends in my own native valley.

I have no credentials td present, nor any official instructions of duty to pursue, furnished me as the representative of that body who delegated to me this duty, but I relieve myself of much of the embarrassment incident to my position, by borrowing the use of a commission found in a volume of ancient records; and although dated prior to the establishment of any agricultural association, is still so pertinent to the present occasion that I have appropriated it to my own benefit; it is brief yet very explict, and comprehends many of the leading agricultural statistics which it is our purpose to collect; and if old things *are* to become new, I shall need offer no apology for my appeal to the *higher law*, for my authority. It is the commission and instructions which Moses gave to those whom he delegated to visit and examine the land of Canaan; allow me to read it; he says to them, "Get you up this way—and go up into the mountain and *see* the land what it is, and the people that dwell therein, whether they be strong or weak, few or many; and see what the land *is* that they dwell in, whether it be good or bad; and what cities they be that they dwell in, whether in tents or strongholds; and see *what* the land is, whether it be fat or lean, whether there be wood therein, or not, and be of good courage and bring of the fruit of the land." These, sir, are my assumed credentials, and we may safely infer from the record, that these instructions were given not far from this season of the year, for it says, "now the time was the time of the first ripe grapes"—and such grapes! such native grapes too, with such evidence of the abundant fertility of the soil, it is no surprise that my *illustrious predecessors* made their report, that it was a land flowing with milk and honey. I may safely presume that such are not indigenous to your soil, although the cultiva-

ted ones now before me are a splendid sample. I will therefore satisfy myself from the demonstrations which have this day been presented from the departments of agriculture, horticulture and the domestic manufactures, from your flocks and herds, that, if this is not strictly a land flowing with milk and honey, it is literally a land *over*-flowing with all the substantial comforts and conveniences of life, and possessing as many of the luxuries as it is convenient to enjoy, furnishing the most unequivocal testimony to the judgment and well directed labor of the farmer, to the skill and ingenuity of your female artizans; and that the land you dwell in is fat and good, that your people be many and strong—that they dwell in strong holds and have monstrous barns well filled, and plenty of wood.

Almost an half century has passed since that record was made; and yet it remains with all its freshness among the thrilling incidents which have since transpired, as fresh and fragrant as when first impressed. It was, sir, the *first* (*a*) agricultural exhibition ever made in this country. And it was the birth-day of our *elder sister*—she of whom it may be said is the mother of all the Agricultural Societies, now scattered over our Union, from Maine to California,—thirteen of which are within our own borders, and the youngest of which, I have the pleasure of participating with to day if not to witness its birth. I may venture to say christening, unless I have lost time, for in this age of *progress* and improvement, children are born by *express* and christened by *telegraph*, fearing their names would not otherwise overtake them in this world; but pardon me, sir, I think it a promising child, well worthy to receive your fondest paternal and I may add too *maternal* care. She is now for the first time initiated into the embrace of her sister societies. And we bid you a hearty and a cordial welcome. Young as she is, we cannot apply the figurative expression of Solomon to her, "that we have a little sister and she has no breasts," for I see the breast of every member of this society is fully extended with the highest aspirations for the future welfare and destiny of the society. Go on, then, Mr. President and gentlemen, fulfill your destiny, and your laurels shall be interwoven with that wreath of glory which encircles the character and honor of Massachusetts.

Remarks.—The Middlesex County Society was *incorporated* in the year 1803, and had existed as an unincorporated association, under the same name, from the year 1794. We had supposed it the oldest County society in the State. "The *Massachusetts* Society for promoting Agriculture" was incorporated in 1792.

The Garden.—Daniel Webster writing to the overseers of his farm in Franklin, N. H., last March, uses the following truthful language of cultivation and the garden.

"Whatever ground you sow or plant, see that it is in good condition. We want no *pennyroyal crops*. 'A little farm well tilled' is to a farmer the next best thing to a 'little wife well willed.' Cultivate your garden. Be sure to produce sufficient quantities of useful vegetables. A man may half support his family from a good garden. Take care to keep my mother's garden in good order, even if it cost you the wages of a man to take care of it. I have sent you many garden seeds. Distribute them among your neighbors. Send them to the store in the village that everybody may have a part of them without cost."

For the New England Farmer.

BROOM CORN.

Having cut the brush, the next step in the process is to cure it. Its value depends much upon the manner of curing. If suffered to become heated, its color will be changed and the buyer will say, "'tis nought, 'tis nought." Some bind it in small bundles, others do not. If bound, it requires less room to dry it, and it is in a better form for scraping.

When thoroughly dried, then comes the scraping process. This consists in removing the seed from the brush, by drawing it through a scraper, composed of two elastic steel plates curved outward at the top and pushing hard against a pointed rod, standing erect. It is considered a day's work to scrape two hundred pounds. After scraping, the brush is firmly bound in small bundles, and is then ready for the manufacturer.

The cultivator often finds it necessary to retain his brush for several months, and his care is not to cease with the removal of the seeds. Rats and mice, either because they know that "the new broom sweeps clean," or because they feel a deep interest in all the operations of the farmer, and wish to *rat*-ify all his proceedings, are sure to domicile in the newly scraped brush. Broom brush, therefore, needs the same protection as Indian corn.

Productiveness.—An important question with the farmer is, "will it pay?"

There are many contingencies affecting the answer to this query. The quantity of brush varies from 300 to 1300 lbs. per acre, according to the condition of the soil, and the skill and faithfulness of the cultivator. In the towns above named, the average yield don't vary much from 750 lbs. The quantity and quality of the seed varies still more. An early frost destroys the seed entirely. If the land is cold, from too much clay, the seed is liable to be chilled in part, or wholly. When the seed ripens well, the cultivator expects ten bushels of seed to every hundred pounds of brush. Hence, if accurate in my estimate above, the average product of an acre is seventy-five bushels. One hundred bushels of seed and one thousand pounds of brush, is not a very uncommon product in a good season.

Broom seed, for all purposes, except feeding horses, is worth as much as oats. It is heavier, and for feeding swine, cattle, sheep, and even horses, it is really worth more than oats, though it does not command so high a price. When oats sell for fifty cents, broom seed is worth about thirty-seven and a half cents. It is generally estimated that the broom seed, in an ordinary season, is worth as much as an oat crop would be, on the same land. The price of brush varies from two and a half cents to fourteen. The average for the last twenty years, I think, has been as high as six cents per pound. At five cents, cultivators regard it as a better crop than Indian corn at one dollar per bushel, provided the seed ripens.

Taking seven hundred fifty pounds as the average crop of brush, and sixty bushels as the average for seed, and allowing six cents as the price

of brush, and two shillings per bushel for seed, we have, for the product of an acre $65,00.

Allowing one thousand pounds, which is not uncommon, and one hundred bushels of seeds, and we have as the product of one acre, $93,30.

The expense of cultivation differs not essentially from that of Indian corn. It may be a little more. The amount of manure required is less. It exhausts the soil far less than Indian corn, or potatoes. I know of plats of ground, which have been planted with broom corn more than twenty years in succession, and their owners tell me, that they produce more now than at first.

It will be seen from what I have written, that with suitable soil and climate, broom corn may easily be produced; and that, ordinarily, it is among the most remunerative crops raised in New England.

It should be borne in mind, however, that there is but a limited demand; and, whenever the supply exceeds the demand, it becomes a losing business. Hence, the fluctuations in the market. When the farmers in Ohio engage in the cultivation of it, as they occasionally do, the business is ruined in Massachusetts. Last season, brush was brought from Ohio and sold at Northampton, for three dollars per hundred. We cannot grow it for that. One word about plows and I am done.

Messrs. Ruggles, Nourse, Mason & Co., whose skill, untiring industry and eminent success in improving and perfecting agricultural improvements should commend them to every tiller of the soil, have prepared a plow with special reference to broom corn stubble. With an ordinary plow, it is found difficult to cover the stubbs. If left exposed, they are troublesome, rendering it difficult to cultivate the lands or to reduce it to a sufficiently even surface to seed for grass. This plow is so constructed as to cut and cover eighteen inches, and if necessary, twenty-one inches. The rows are ordinarily three feet apart, seldom more. With this plow, every second furrow will cut and cover a row of stubbs, leaving the surface smooth and burying the roots where they will no more annoy the cultivator, but nourish the succeeding crop. This plow has been tested in several of the river towns, on broom corn land, and found to accomplish all that was designed. I would recommend it to broom corn tillers, and feel confident they will find it for their interest to be possessed of this labor-saving machine. N. B. H.

THE FARM OF B. V. FRENCH.

I had the pleasure a few days since of visiting the farm of B. V. French, Esq., of Braintree, ten miles south of Boston, on the Old Colony Railroad. It consists of about 180 acres. Some of it is yet in the condition in which the drift agency left it, covered and filled with bowlders. This shows what the whole was before Mr. French had the management of it. Large portions, however, I should think much the larger part, are completely reclaimed, and what a change! From the most unseemly, it has become the most lovely. The man, who has wrought the transformation, must be set down as a public benefactor. My stay with Mr. F. was short, and he, as such a man of course must be, was much engaged. I cannot therefore give statistics of his farming operations. But such quantities of fruit, apples of every variety, pears, peaches, plums, melons, and more than I can name; such crops of every description; such animals, horses, oxen, cows, and swine of the choicest breeds; such an amount of labor going on, and all so orderly, so perfectly reduced to system; every thing, from the flower garden to the large cornfield, and from the strawberry patch to the great orchard with its tempting fruit in almost boundless profusion, so as it should be, as a gentleman of taste would wish it, and as an economist would say it ought to be; such combinations of beauty and utility; I never saw the like; whether Adam and Eve did in Paradise, is more than I know. Nothing pleased me more than the kind and respectful intercourse between the master of the premises and those in his employ. There was an exhibition of mutual confidence and fidelity which was truly admirable. In a meeting between Mr. F. and his leading men in the evening, at which I was permitted to be present, the whole doings of the day were brought into review, and everything was arranged for the next day, so that every man on the place must have known his duty, and no time could be lost by the men waiting for each other, or waiting for orders from the employee. The farm, so far as reclaimed, is enclosed in lots of from one to three or four acres, by stone walls. The walls are built in the very best manner, and extend from 3 to 4 feet below the surface, to at least 5 above. Gates are placed between the street and the lots, also in the cart path from one lot to another. These, as well as every thing else, are of the most substantial construction, plain, but neat as can be imagined. After riding and walking with Mr. French over much of the farm, as we came to an eminence, whence nearly the whole could be seen, he addressed me, as nearly as I can recollect, in the following language. I only wish I could give his emphases. "When God created our first parents, he put them into a *garden*. In that *garden* were all manner of trees, *pleasant to the eye*, and *fruits good for food*. And why did he put them into a *garden*? That they might *dress it and keep it*. They were to see every thing *pleasant*, and to enjoy every thing *good;* and they were to work. I have always thought that to make a *garden* and to *dress it* and *keep it*, was the pleasantest thing a man could do in this world. When I was in the city, I sighed to be in the country. Since 1817 I have been trying to make a garden. I have made mistakes. Some things I have had to do over again. In some I have been fortunate, and in others unfortunate; and here it is; from this point, you see what I have done." I left him with the belief that he is a happy man, and with the wish he may long enjoy the fruits of his enterprise. I might add that Mr. French is a member of our State Board of Agriculture, one from whose example, though not all could safely imitate, yet all could learn much that is useful. We cannot all do as such men do, but we can all do better for what they do.—*Hampshire Express.*

☞ The Secretary of the Hampshire Agricultural Society, J. W. Boyden, Esq., will please accept our thanks for a complimentary ticket to attend the late Exhibition of that Society. Numerous engagements prevented an attendance.

☞ The better animals are fed, and the more comfortable they can be kept, the more profitable they are, and all farmers work for profit.

TRAINING SHRUBS AND TREES.

DIFFERENT STAGES OF TREE TRAINING.

There is an increasing taste for the *beautiful*, as well as the useful, among those who cultivate the soil. Commenced by amateurs, perhaps, it has found its way into the gardens and farms of the country, and is giving them an air of grace which adds greatly to the attractions of home. And to the astonishment of many, they have found that the cultivation of the beautiful in the careful training of trees, has added much to the cash value of the farm, while they annually furnish the most profitable crops. Pears, apricots, nectarines, peaches and the Siberian crab, may all be trained so as to become highly ornamental and profitable. But little space is required, no hard labor, and a quick return may be realized.

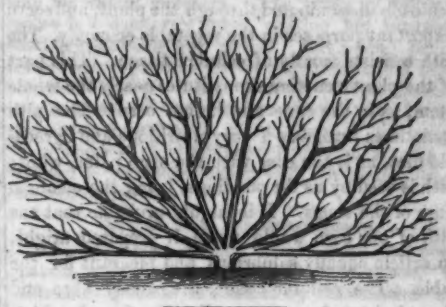
As November is a good season for transplanting and preparing trellis-work or walls to train upon, we improve it to present some specimens of training, with suggestions and explanations from *Cole's American Fruit Book*. A dwarf tree in the espalier form drives no bed of vegetables or border of flowers from the small garden spot, but gives it an air of taste and refinement, and oftentimes a return in a single season of several dollars in cash for its products.

This mode of training is also useful in surrounding and protecting the garden, or at least in defining its limits. It may be done, too, with the cheapest materials, and with no more skill than all possess who have the slightest taste in horticultural matters.

"Our climate is so warm, that training fruits in a southern aspect to walls, fences, buildings, banks, &c., for the purpose of obtaining greater heat, is necessary with only a few southern or foreign fruits, in the North. Most varieties cultivated in the temperate region, come to perfection, even in New England, in the common tree form.

Yet training is sometimes useful to obtain a due degree of heat; it is also very ornamental and convenient in a garden, giving a beautiful and tasteful appearance, economizing room, and furnishing superior specimens of fruit. There are various modes suited to different purposes, situations and tastes.

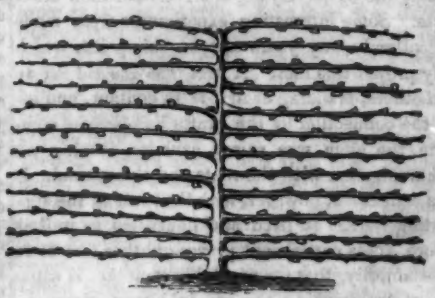
Tree Training differs from common tree form in the production of low and extended branches, caused by cutting back the stem, and checking the upper limbs, until the lower ones become large and strong from the full force of light and heat. It admits of modifications, and is adapted to various purposes, and to almost every species of tree or plant. [See first cut.]



FAN TRAINING.

After one year's growth of the young tree, scion, or vine, cut off the main stem, (figure *a*,) leaving buds on each side. Next season, train a branch each way, and a stem upward, which cut down as before, (figure *b*.) The third season, train a new branch each way, and the stem upward, and cut back again, (figure *c*,) and train small limbs on the lower branches, on each side, or on the upper side only. Another season train up a stem and cut down again, training out another branch on each side, and limbs on another branch, (figure *d*, showing one side.) In most other modes, the top and upper branches are kept back, to induce low branches, and give them a strong growth first.

Fan Training is a convenient form, and is much practised with grapes, peaches, nectarines, apricots, plums, figs, &c.



HORIZONTAL TRAINING.

Horizontal Training is a very neat and ornamental mode, giving a good exposition to light,

heat and air. It is practised with grapes, pears, apples, &c. The distance between the laterals should be from 10 to 20 inches, according to the size of the tree or vine."

STRUCTURE OF VEGETABLES—ORGANIC FUNCTIONS.

A plant consists externally of, 1, root; 2, stem; 3, leaves; 4, fructification, or flower and fruit.

The root fixes the plant in the earth, serving the double purpose of holding it in place and position to receive nourishment, and also of absorbing from the earth those substances which are essential to its nourishment and vital action. The stem consists of pith, wood, and bark. The internal structure of the plant is composed of cellular tissue, woody fibre and a system of spiral tubes, which are each disseminated through the plant, and serve important purposes in the vegetable economy. The pith consists mostly of cellular tissue. This part of the plant sometimes constitutes nearly the whole stem, as in the cane and Indian corn. The pith sometimes furnishes a very nutritious and agreeable diet, as is the case with the sago palm, whose pith is used by us for puddings, being the common sago of the shops. It is highly probable that the pith of our corn would make, if prepared aright, an article equally salubrious and pleasant for the table. The cellular tissue, the woody fibre and the spiral tubular system all serve for absorbing and transmitting the proper food of the plant and for respiration. This last function has been supposed to be performed by the spiral system, which, however, is considered to be disproved by the experiments of Darwin and Knight, which show these vessels to be the channels through which the sap is conveyed. Every part of a plant is covered with a cuticle or skin, like the bodies of animals. Beneath this is a cellular integument; and under this the bark and wood.

Though vegetables absorb water and the atmospheric gases at all points of their surface, it is particularly by their roots that they absorb it in greatest quantity. They are capable, however, of sustaining life by merely the absorption of their other parts. Some interesting experiments were made in Scotland many years ago on this point, which fully proved this fact. A tree was grafted on to two others, standing each side in contact, and after the connection by the grafts had become complete, the stem was sawed asunder, leaving no communication with the roots and the ground. It was connected, however, with the roots of the supporting trees. It lived and flourished as well as before. This experiment proves another fact more satisfactorily, that the vegetable structure is capable of transmitting the sap in either direction, which has also been proved by other experiments with colored liquids.

Water impregnated with many substances, and particularly with carbonic acid, is carried up by the roots into the stem, and by the spiral vessels conveyed to all parts of the plant. Or perhaps the carbonic acid is formed in the plant by the absorption of air in the upper portion of the plant and its mixture with the water absorbed by the roots. This composes the sap, and is carried to all parts of the vegetable, and lastly to the leaves, where it is transformed into the proper juice of the plant, and returned to all parts again. It is in this returning circulation, that the oils, rosins, gums, and odors of the plant are produced.

For the New England Farmer.

A WORD TO YOUNG MEN.

The long evenings which you may now enjoy present to you golden opportunities for the acquisition of knowledge and the improvement of your minds. You cannot expect the tide of fortune gently to take you up and bear you on to glory and renown. No, if you ever hope to fill the stations, perform the duties and bear the responsibilities of *men*, you must trim your sails and set them to the breeze. If you look around you upon the most distinguished men in active life, you will find that they did not attain their present position without labor and effort. They did not lazily fold their arms and close their eyes upon the perspective of life, but they put forth all their energies to accomplish the end they had in view. So must you, if you ever expect to distinguish yourselves in anything great or good. Seize then the "golden ball of opportunity," and improve the hours which can be spared from the laborious duties of life, and consecrate them to the improvement of your minds, and the acquisition of useful knowledge. Thus, and thus only, can you become really useful and distinguished members of society, and reasonably hope to be a blessing and an honor to the world. Do not let the delusive phantom of a want of genius deter you from entering upon this work of self-improvement. As Longfellow has beautifully expressed the sentiment,

> "Lives of great men all remind us,
> We can make our lives sublime,
> And departing, leave behind us
> Footsteps on the sands of time."

Read over the lives of some of the most distinguished men, and see from what small beginnings they raised the superstructure of their celebrity and renown. If you feel an interest in any particular branch of knowledge, begin that study; pursue it with diligence, and you will soon be surprised at your progress. Difficulties, which at first sight appeared insurmountable, will vanish before you, and you will be cheered with the thought, that you are daily increasing in knowledge and wisdom. Cultivate your moral as well as your intellectual powers, and endeavor to impress upon everything around you an influence for good. Thus shall you live a life that shall be honored of God and man, and make you a name that shall live when you sleep in the dust. The boundaries of science are every day extending. Every year brings with it some new discovery, which will continue to affect the condition of mankind through all coming time. Every year witnesses some new triumph of human genius and industry, which will

contribute to the increased happiness of millions of the human race, and spread the elements of civilization and refinement to the remotest ends of the earth. We cannot even contemplate without astonishment the rapid progress which has been made in almost every branch of science and art, within the short space of fifty or one hundred years; and it cannot be that human reason and industry have yet achieved for us all of which they are capable; that the world has yet reached the culminating point of its greatness, either in intellectual, moral or social excellence. No, far otherwise. We believe, that in centuries to come they will achieve yet mightier conquests, and bequeath still greater blessings to the family of man. Young men, be up and doing, then. Resolve humbly, yet firmly, that through the blessing of God you will be prepared to act your part in the world's grand drama. T. D. W.

Acton Centre.

R. I. HORTICULTURAL SOCIETY.

We have received a beautifully printed pamphlet containing the Address of GEORGE H. RUSSELL, Esq., of Roxbury, before the Rhode-Island Society for the encouragement of Domestic Industry, and the Rhode-Island Horticultural Society, at their third Industrial Exhibition in Providence, on the 17th of September last. We should be glad to lay every line of it before our readers, as we should be glad to spread all this gentleman's writings on similar topics broadcast over the land. But we are able only to give a few extracts, beginning with

A GLANCE AT BY-GONE AGES.

The industry of by-gone ages, if it could be faithfully delineated, would give a picture of national and domestic life, which might be studied with interest and instruction. It now comes to us in fragments, garnered from crumbling tombs and buried cities. It peers from the canopy of sand wreathed over broken statue and fallen temple. It tells its tale of misery on idol and obelisk, where its own hands have written, in the everlasting granite, a memorial of its wrongs and sufferings. It lies strewed on plain and hill-side, to arrest the pilgrim, and point out for what it toiled, and starved, and died. It shows how, at the will of priest and despot, it carved out their theology in black basalt, left the Sphinx to crouch, with her unsolved riddle, by the eternal pyramids, raised the chanting Memnon to salute the morning with his, now unstrung melody, and burthened the encumbered earth with huge, unmeaning monuments, that unnamed kings might moulder in forgotten graves. Poor humanity groaned out its agonized existence, that at some distant day, when the Arab should pitch his tent on mounds covering regal palaces, the curious stranger should unfold the long hidden customs of Assyrian life, and laying open the abodes of Monarchs and the altars of unknown rites, bear to far off lands the symbols of old religions, and the ensigns of ancient sovereignty.

The desolating wars which make up history, leaving little to be told except the shock of armies and the results of conquest, have been fatal to the advancement of the human race. True progress recedes from the clash of arms. Silence reigns in shop and factory at the flaunting of martial banners, and rural toil ceases when the drum beat tells that men are to be harvested. "The thunder of the captains, and the shouting," are the death knell of industy. It flourishes where they are never known, and rejoices only in the songs of peace. The farmer's frock and the mechanic's apron are more honorable badges than the warrior's tinselled livery, and the horse is a more respectable animal, tugging at the cart or the plow, than in saying, "ha, ha! among the trumpets."

Thirty-seven years of continued peace have done more for the useful arts, and the general welfare of the world, than all the patronage of conquerors, in the rarely lucid intervals of their madness, through all past time. War breeds war, not only in perpetuating national hatred, but in creating a tiger-taste for blood, and a love for the vagabond, lawless, and exciting life of the soldier, disqualifying for useful purposes. The pride of military glory is a country's curse, wasting her energies, and demoralising her people. But a long period of peace brings out a better ambition, and a more civilized rivalry. Deeds of arms become matters of anecdote and story, and are heard with lessening interest as the old actors drop off the stage. New views of duty are generated, and activity is turned to productive labor, and the promotion of human happiness.

REFORMATION AND BENEVOLENCE.

There is a vital energy, which must find occupation, and, in these "piping times of peace," an abundant portion is claimed by reformation and benevolence. There are those among us who speak the wrongs they feel, and do not stop to weigh and measure out indignation. And there are those who are found wherever there is sin and suffering, whose daily life is passed where vice may be reclaimed or poverty succored, where guilt awaits its doom, or, having completed its years of silent penalty, re-enters the company of men to be shunned and driven back on crime, unless some kindly word or deed of encouragement may make it feel that there are those who can forgive even as they hope to be forgiven. And there is help for the orphan who needs a home; and charity, in every form that can minister to disease of mind or body, spreads its kind care over error or misfortune.

THE ENTERPRISING, WORKING YANKEE.

Industry has never had such an unimpeded progress as in this country. Free from the military exactions of Europe, where standing armies drain the land of its best blood, and the liability to compelled service disheartens the exertions of the laborer, we are left to our own resources, without interference or encumbrance. However little reason we have to boast of the advance made in those portions, where local causes keep down improvement, and show no change, save exhausted fertility, and the return of the wild deer to the worn-out and abandoned plantation, we can present our New-England as an evidence of what may be accomplished by diligence, when allied with determined perseverance and temperate habits. The stern necessity which brought the fathers, has made the children what they are; and the resolute, dogmatic, conscientious, rigid Puritan, has produced the pains-taking, money-making, enterprising, working Yankee. He is an original for-

mation. History has offered nothing like him, and you may go the wide world over, ransacking all nations, without encountering his parallel. Circumstances have created him, and although they operate on the newly landed immigrant, astonishing him, in time, with the fact, that his head can think of two things, and his hands do a dozen, they can never mould him into the think of every thing, natural growth of the soil. The real native turns his hand to any thing, lays the foundations of a city with an axe and a jackknife, unites all trades in his own person, whenever it is most convenient to do so, it being a matter of unconcern to him whether he shoes himself or his ox, builds a house for his family or a sty for his pigs, holds a plough or tends a spinning jenny, goes a lumbering or to the Legislature, opens tavern or keeps school. He is farmer, trader, carpenter, mason, shoemaker, blacksmith, and legislator; and is ready to give instruction in either, including most other branches of human knowledge. If he wants an article, he makes it, and if the right thing has never been made before, he invents it for the occasion, never dreaming that he is doing what is not, of course, done by all other men. He longs for foreign travel, concludes to see the world, and indulges in the episode of a four years whaling voyage; hears of California, and, in a few months, is whittling on the banks of the Sacramento, finding it more profitable to let others dig, and trade for the proceeds. He is slow to wrath, and can endure much, when it is against his interest to show fight. The thing is, however, in him, as may be ascertained, by painful experience, by pressing him beyond his bearings. He has a reverence for wealth, and a decided inclination to convey as much of it as possible into his own keeping; thinks well of education, and has great respect for learning, when it does not cost too much, but grumbles if it increases the tax bill, and is apt, for the time, to manifest, like the spiritual rappers, a ghostly indifference for such minor matters as orthography and syntax. He has great economy of time, grudges the last hours given to sleep and food, takes the fastest boat, the chances of blowing up being quite a secondary consideration to that of landing a few minutes earlier; wonders why the train goes so slowly, when it is tearing along its thirty miles an hour, and rises from his seat the moment its speed slackens, fearing that somebody may, somehow or other, have an advantage over him by getting out first. He has a natural inborn courtesy to woman, gives up his comfortable seat in coach or car without a murmur, considers that she has, indisputably, the best right to the best things, and has more real gallantry than existed in all the cutthroat days of chivalry.

There, if any can do better than that, we have never seen it. It is a perfect portrait.

ONIONS.

Mr. Benjamin Clifford, of Norwich, has succeeded in protecting this valuable root from the ravages of the insect which has for years almost entirely destroyed the onion crop in this vicinity.—We visited Mr. C.'s garden a few days since, and observed two beds of onions side by side, and about two feet apart, one filled with fine large red onions, perfectly sound, while the other had but a few scattered stalks with scullion bottoms, rotten and full of maggots. On inquiring, we found that the full grown onions had been sprinkled with *tar water*. An equal quantity of hot water and tar were stirred together, and after standing a few hours, the fluid part was sprinkled upon the onions on one of the beds. This application was made in June, when the young plants were first attacked by the fly, and the process repeated about two weeks afterwards. The result was a fine crop upon that bed, while upon the other, not a single onion was raised.—*White River Advertiser.*

For the New England Farmer.

FREAK OF NATURE.

Mr. Brown:—Dear Sir,—We send you by bearer two apples, one a Baldwin as you will see, the other a Russet. They were raised by Mr. Rogers, of Watertown, who found when picking his apples two kinds as appeared to him, and as it really proves, on one limb. It being a small limb, he cut it off, to show to his friends; we saw this limb, and from it he picked four Russets such as we send you, also three Baldwins, one of which we send you; this limb, the end that was cut off, was some fifteen feet from the trunk of the tree, and as the Russets and Baldwins grew upon the same small limb, there is no way to account for it but by saying it was a freak of nature, and a strange one too. You will notice that the Russet is marked somewhat with the red color of the Baldwin, though in other respects it does not differ from common Russets. On the side of the tree on which these apples grew, stands a Russet tree the limbs of which are intermingled with the Baldwin.

The above are facts, *though not written for publication.* Yours respectfully,

James Hyde & Son.

Newton Centre, Oct. 30, 1852

Remarks.—We are much obliged to the Messrs. Hyde for kind attentions. The apples are preserved for the inspection of the curious. To our eye, there is not a very strong russet resemblance in the apple that approaches that variety. There is a greenish tint pervading it that is never, we think, seen in the true russet. But from some cause there is a remarkable departure from the Baldwin in one of the specimens; but similar changes are not unfrequent.

For the New England Farmer.

THE HUSBANDMAN.

Mr. Editor:—In my readings I lately came across the description, as below, of the happy life of a husbandman. It is from Deare's translation of the Georgics of Virgil. It was so pleasing a picture, I transcribed it for my own gratification. Perhaps it may do something towards convincing the farmers of New England of the bliss which they enjoy compared with other employments and professions. I noticed in the *Christian Register* of to-day, in a piece written by a clergyman from "*Peaceville,*" the following pleasant thoughts:

"I always feel a peculiar interest in the conversation of an intelligent tiller of the soil; and when I hear him speak of his various processes of cul-

ture and of the different products of his trees and fields, I have sometimes thought that there was a deep instinct of my heart which drew me to these objects, as the natural interests and employments of man. And who knows but such an instinct is common to us all, giving to our thought and labor an inborn direction, which all education and habit cannot quite overcome, and which pleads with so many of all callings and professions to go back to man's primitive employment, the tilling of the soil!"

Very many of the same sentiments were expressed by Rev. Mr. HUNTINGTON, in his speech at the Norfolk County Agricultural Society's dinner-table, a few days since. He spoke of the course of an upright, intelligent farmer, as being a constant sermon to the minister. We are glad to see the effect the preaching and practice of the *New England Farmer* is having on the ministers. It will do them good. W. R. D.

THE HUSBANDMAN.

Ah! but too happy, if they knew their bliss,
The husbandmen; for whom the righteous earth,
Far from discordant arms, pours forth her stores
Of ready sustenance. What if for them
No lofty mansion from its ample porch
Vomit each morn a sycophantic tide;
What, if no decorated columns move
The admiring crowd; no broidered gold disguise
Their simple vests, nor Grecian vase for them
Project its graceful form; no Tyrian dye
Their spotless wool, nor vitiating use
Of Eastern perfume taint their wholesome oil?
Yet rest secure, and life that ne'er deceives;
Rich in various wealth of wide domains;
Caves and the living lake; yet cooling vales
And lowing herds and shaded slumbers sweet
Are thine. For them the woodland glade expands;
Theirs are the pleasures of the chase, a youth
Of labor patient, and of frugal fare;
Theirs the pure altar; theirs old age revered:
Leaving 'mongst them her vestiges extreme
Departing Justice fled the haunts of men.

For the New England Farmer.

MISMANAGEMENT WITH APPLE TREES.

MR. EDITOR:—I send you some of my views respecting the improper management of apple trees, which if you should think might be conducive to the benefit of mankind, you will please to insert in your valuable paper. I shall commence the subject in an abrupt style, by saying, if a coroner's inquest were held over four-fifths of the apple trees that have died in Vermont and Northern New York within the past twenty years, the verdict would be, *died of starvation*. There is scarcely a person who has followed husbandry ten years, that does not know that it will not answer to take off more than five or six crops of grain in succession from a piece of land without manure; but the same man takes off from ten to fifteen crops of apples from his orchard without adding manure; and when the crops begin to grow light, the fruit small and of inferior quality, he begins to inquire for the cause of such light crops. He asks his neighbor what is the matter with his orchard. (Pretends to be very wise himself, but likes to get the opinion of his neighbors.) His neighbor tells him it needs pruning, and he soon prepares for the business. He is very much afraid of cost, and therefore tries to find a man that will do it cheap. (Most farmers, if they are obliged to have a leg or an arm cut off, employ the most skilful surgeons who perform the operation with the sharpest and finest of instruments, but the same men generally employ the cheapest bunglers they can find to cut off the limbs of their apple trees.) He soon finds a cheap bungler; and to make it come cheaper, he hires him by the job, and gives him all the branches to pay for the labor. This induces him to cut off twice as much as he otherwise would have done. (I wish to have it borne in mind, that every branch above, has its corresponding root below, and when a large branch is cut off, its root is more or less paralyzed, and a derangement in the circulation takes place, similar to that occasioned in the human body by cutting off a leg or arm.) He now commences the work of death upon the orchard with an old dull axe, and cuts or haggles off one-half of the branches. The next year the apples being much larger, Mr. Unthrifty thinks he has accomplished the great object. The reason why the apples are larger is, the few branches receive the same nutriment that the many received before. The branches being improperly cut off, the stocks do not heal over, but soon die, rot, and form holes into the trees; these holes let in the water, which soon destroys the inside of the trunk. This, together with the great derangement in the circulation, occasioned by cutting off too many large branches, and want of food, act so powerfully upon the vitality of the trees, that after vainly struggling for a few years, they give up the ghost and die; and who blames them? surely no man of understanding can.

The husbandman now finds his plans frustrated, and again inquires of his neighbor what has caused the death of his orchard. (His neighbor don't know enough to tell him that starvation was the principal cause.) He tells him that the climate does not agree with old apple trees in this latitude at the present day, and the only thing he can do, is to set out a young orchard. He says to himself, this will be of no use to me, for I am now sixty years of age, but as I have children who are fond of good fruit, I will set out a few to gratify them. The first step he takes is to find where he can obtain the trees cheapest, without any regard to the manner in which they have been trained. (One tree properly trained, and properly set, produces more clear profit the first twenty years, than ten set otherwise.) As he is a man who deals mostly in cheap articles, he employs a man to furnish the trees and set them by the job. (This is the worst kind of jobbing I ever heard of.) This he does for eighteen cents apiece. It is generally the case that people who work by the job, try to make as good a job as possible. He is therefore very careful not to dig the holes too large. He digs them about as large as a peck measure; into these small cavities, surrounded by a very hard soil, he crams in the roots of the trees, and if he cannot get them all into the hole, he cuts off a part of them with his shovel. (Whenever the roots of trees are cut off, it should be done with a very sharp instrument.) He then throws back the sods and lumps around the trees and pronounces them set in first rate order. He then receives his pay and is off in a hurry. Mr. Unthrifty soon expects to see a thrifty young orchard, but is very much disappointed. The trees being improperly

trained while in the nursery, and improperly set in the orchard, one-third of them die the first season. The remainder being sickly, languish three or four years, during which time one-half of them die. Of all the trees thus set, not more than one in ten is ever profitable. About this time Mr. Unthrifty dies, leaving his unthrifty orchard for his unthrifty children, who are very thankful for the pains he has taken for them, at the same time thinking him to be nearly as wise as any man in the union. This is the way many men manage with their orchards, who boast of being enlightened, and who are living in these free and enlightened States of North America. I should like to say something on the subject of irrigation, which I perceive is very imperfectly understood in this part of the country; but shall defer it till a future period, well knowing that the minds of men are much like their stomachs:

If cram'd too full, they throw out the whole;
But if fed by degrees, they digest all with ease.

ELIHU CROSS.

Potter Hill, Rens. Co., N. Y.

CONCORD FARMERS' CLUB.

OCTOBER 25, 1852.

SUBJECT,—*The Corn Crop in New England.*

Mr. JOSEPH D. BROWN said he once thought the corn crop an unprofitable one to raise, but upon adopting a different practice in the modes of cultivation, his views had changed. He believed that in his earlier practices he had not managed the crop properly. By manuring altogether in the hill he used to get a great deal of stalk and but little corn; he then spread the manure entirely, and under this practice found the stalk too slender. Last year he spread the manure as usual, plowed the ground twice, pulverized finely, and just before dropping the corn added a table spoonful of guano to the hill, sometimes mingled with meadow mud, and in another case, pure guano, spreading it about the hill before dropping the kernels; hoed the corn three times, and has harvested a fine crop of sound grain equal to 1200 bushels of ears upon 22 acres, making an average of about 52 bushels to the acre. On four acres in the centre of the field there was estimated to be 80 bushels to the acre. The average weight, husked and weighed on the ground where it grew, was 45 lbs. to the square rod, on the four acres of the heaviest.—He used 25 ox loads of good composted manure to the acre, worth $1 a load. He thought forty bushels per acre a fair average crop, viz:

50 bushels corn per acre, at 75 cts.	37,50	
Stover, per acre	10,00	
		$47,50
Cost of cultivation per acre	10,00	
25 loads manure	25,00	
133 lbs. guano	3,33	
		$38,33
Leaving for profit		$9,27

Saying nothing of the interest of the land, he found a clear profit of $9,27 an acre, and each acre in a condition to produce a heavy crop of grass, sufficient as an average, perhaps, to give two tons of hay to the acre, for four years, without manure, and for six or eight years with an annual top dressing of good compost.

Mr. ELIJAH WOOD, Jr., said he had been satisfied for ten years past that the corn crop is a profitable one. He could do all the necessary work for this crop for $13,50 per acre; usually puts on 25 cart-loads of manure, and gets about 40 bushels of sound corn to the acre. He thought the stover worth as much as the labor costs. It is a good crop for our dry and hot summers. He would not advise to put the crop on *moist* land; other crops may be made more profitable there. He said we could raise this crop as favorably as can farmers at the West; their crops fail after two or three years planting without manure, and they are then obliged to have recourse to methods similar to ours in order to re-invigorate the soil. In passing through the State of Ohio the past summer, he saw few fields which he thought would average over 25 bushels to the acre. In cultivating, he keeps the land level and sows grass seed at the last hoeing—thinks this process cheaper and better than plowing and seeding or sowing grass seed with grain in the spring. Would recommend plowing heavy land intended for corn in the fall; but light sward land, if only the day before planting the better.

Mr. J. WARREN BROWN said that the gentlemen who had preceded him in this discussion had reported so much more favorably than he could, that it was hardly worth while for him to speak; but as experiments are not always the most valuable because they are successful, he would briefly state his operations and their results. He had plowed a few acres of poor land, so poor that the grass got from it for several years past was only sufficient to pay for the cutting and making. This he had planted with corn, adding a spoonful of guano mingled with finely pulverized meadow mud, ashes and plaster to the hill, and with this treatment had gathered 21 bushels sound corn to the acre. He thought the stover would pay all expense of cultivation. This was done as an experiment. In his other corn crops where he manured with 25 ox loads to the acre, he could get as an average from 40 to 50 bushels of good corn from the same amount of land. Several years ago he gave up cultivating corn from the belief that it was an unprofitable crop; but he had seen conclusive evidence that he was wrong, and now believed that it is one of our most profitable crops.

Dea. ABIEL WHEELER said the corn crop was particularly liable to be injured by cut worms. Fields in his section had suffered considerably for many years. He had hoped some remedy would be suggested for this evil.

Subject for next meeting, Monday evening, Nov. 1, "*Are there advantages in cutting fodder for stock?*" Leaders—JOEL WHEELER—JOSEPH REYNOLDS—ABIEL WHEELER, and JOSEPH HOSMER.

For the New England Farmer.

MY GARDEN.

OR, SMALL NOTES FROM A SMALL BANK.

1. *Extent and Aspect.*—It measures by my paces about seven rods east and west, and three rods north and south, containing twenty-one square rods. It slopes to the south, converging on the south line from the west, so as to form a hollow extending into my neighbor's premises. This hill-side takes the full strength of the sun, and rains wash down the soil, and till I built a high wall on the south line, its finest and best portion ran away to my neighbor. Two grass terraces, not yet sufficiently raised, have arrested a portion of my fugitive ground. Would not perpendicular terraces of stone, be preferable, by giving me more space to cultivate, and affording a less tempting resort for mice, which destroyed my raspberry bushes, under last winter's snows? (*a.*) So I judge, though a grass bank suits the eye better, while, alas, it constantly claims the right of annexing the adjacent territory, much to my annoyance.

2. *Its Soil.*—It consists, in its natural state, of pebble stones, from over 100 lbs. weight, to an ounce, and I cannot say how much less. In the twelve years I have cultivated it, probably enough has been removed to build a sufficiently high adobe wall to secure it on two or three sides. The supply is still ample, though my hoe rings less against them than when I began to batter it. The *ox-stone raker*, (*b*) to exhume and gather them, has not come to hand yet. The crow-bar strikes firm bottom too soon, often when I try my power of *penetration*, in setting bean poles. Yet my soil has a good constitution, with appliances to develop its fundamental principles, commingled with the auxiliary forces of clay, loam, muck, &c., provided, always, it is made contented to remain with its owner.

3. *Its insects that war upon it.*—The cutworm, the cornstalk and potato-vine borer, the yellow striped bug, and his slugs, and the whitish thousand legged racer, that can run backward and forward equally well, perhaps, and that eats off strawberry roots, and the squash bug, also, are all fond of the repasts they find in my garden. No law of extermination, yet known, can reach them. My squashes I save, by inspecting the leaves often, especially the under side, killing the parent bugs, and scraping off their eggs. The borers of fruit trees I fight with knife and wire, for ashes, soap, &c., have disappointed me. With common soap, I excoriated the bark of my finest peach tree, and it died in consequence. Gave too large a dose, doubtless. The insects found on the branches of my fruit trees, are, first, a small brown worm, coiling single leaves of apple trees around him, eating off the blows, and cutting off the stems of the germs; second, the curculio, that speedily follows, diligently depositing his ovum in the young apples, plums, and cherries, working sure death, or a stunted growth, with his sharp gouge. Third, the codling miller, making the blow end of apples his place of deposit for his offspring. This rearguard of the invaders, scarcely an apple escapes, left by them to struggle for life. The bag-catterpillar I destroyed by crushing, when within reach, or burning if not. I assailed curculios with the syringe, and lime water, soap-suds, and tobacco tea; but I was too late, as the enemy was entrenched. My apples I nearly lost, but cherries escaped, and plums beyond my hope.

4th. *Experiments.*—Placed four or five inches of white sand below the seed potatoes, in one row, with no marked result. Ashes unleached in the hill, I found of no service, but prejudical. Charcoal dust used in the hill had no striking effect. Having feared stable manure, and besides, finding none to buy, I spread on one plat, before plowing, a supply of decayed forest leaves, and the surface sod, and there the potatoes grew large and sound; and in a drilled row, planted a foot apart, one tuber in a place, the whole bedded well with decayed leaves, beneath and between the whole the product was evidently increased much, and the tubers were many of them unusually large, and all of them of a healthy appearance. (*c.*) They were the long curved blues, called in Vermont, cow-horns, a fine potato, ripening rather early. They evidently are a very productive kind.

5th. The weeds of my garden, piled from time to time, with grass of my terraces and small yard, and droppings and scrapings from the street, receiving night soil and soap-suds of the wash, turfs also being added, afford much aid, as to compost manure.

Please accept this small instalment from your obliged friend. J. Lee.

Salisbury Centre, Conn., Oct. 10th, 1852.

Remarks.—Please accept our hearty thanks, friend Lee, for the picture of your garden, and for the experiments and observations you have made therein.

(*a.*) Would not a perpendicular wall where the grass terraces now are, afford you a fine opportunity for the espalier training of grapes, peaches and dwarf pears, be equally as pleasing to the eye and yield you a handsome profit? We lately saw a row of pear trees trained to a lattice fence in the garden of Mr. John Gordon, of Brighton, nearly all of them yielding delicious fruit, and on one of which, we counted *one hundred and one*, large and very handsome pears, we think of the Duchess D'Angouleme variety.

(*b.*) But the *stone picker* has been invented, is in use in England, and we believe has been introduced into this country.

(*c.*) Mr. Lee's experiment with the potatoes is well worthy of notice. When the crop has suffered the most by rot, we have rarely known it affected on *new, dry* land. What virtue is there in new land, which the potato requires, that is so soon exhausted by plowing and cropping?

CATTLE SHOW AT NORTHAMPTON.

The annual exhibition of the Hampshire, Hampden and Franklin Agricultural Society occurred at Northampton, on Wednesday and Thursday, Oct. 6 and 7. The multiplicity of these festivals, instead of satisfying the public mind, and growing yearly less and less interesting, are becoming annually more enthusiastic, better attended, and each exhibits, in some respects, marked improvements over its predecessors. A spirit of honorable emulation has been awakened and the beneficial results are everywhere apparent. There is no portion of country better adapted to the growth of

such institutions than the fertile valley of the Connecticut. It is among the enlightened farmers of this region that their benefits are appreciated and sought, and it is among them that these advantages will be improved to the utmost. Every year witnesses the formation of new societies, and it may not be many years before every town will have its own Cattle Show, and agriculture advance with rapid strides.

The exhibition of *Stock*, took place on the common near the cemetery, on the morning of Wednesday. The show was not equal to that of previous years. The variety was less but the quality was good.

There were 11 entries of Working Oxen, and among them a pair belonging to Mr. EDMUND SMITH, of South Hadley, attracted much attention. Of Steers there were 9 entries. Of Bulls 6, many of them noble animals. We noticed in particular, that of Mr. DEXTER ALLIS, of Hatfield. The entries of Milch Cows numbered 6; among them was a fine cow, weighing 1640 lbs., owned by Mr. MOSES BRECK, of Northampton, from which 10 lbs. of butter per week was about the common average, on nothing but hay feed. Swine were fully represented, and many fine specimens were presented. The number of entries was 10.

For the plowing match 22 teams were entered, and the contest was most spirited. The whole number of entries of Domestic Goods was 151; Garden Vegetables 60; Fruit 532; Mechanic Arts 50; Fancy Articles 70; Bread 71; Butter and Cheese 27; Fowls 54; Sheep 4.

The exhibition of Horses did credit to the Society, and made ample amends for what might have been lacking in the Stock department. There were a large number of entries, and many fine animals were presented for premiums.

The address, by Mr. GOULD, of Hudson, N. Y., was a practical, sound, thorough mingling of science with the most common employment of the farm. It was highly scientific, yet at the same time so practical in its bearing, as to be understood by every person present, and even though the terms were forgotten, the practical deductions from their use were so stated as to be understood and remembered for future practice. His subject was "the germination and growth of Indian Corn."

At the dinner-table, speeches were made by Secretary GORHAM, who spoke in an eloquent manner of the need of scientific agriculture, and closed with the following sentiment, which called out His Excellency, Gov. Boutwell.

"Ever first in our hearts—the Commonwealth of Massachusetts—represented to-day by her Gov., GEO. S. BOUTWELL."

The Governor spoke of the wants of a ture, of societies for its promotion, and suggested that our local societies should be increased till each town had its own, and these should form the basis of the County societies. Nothing should be exhibited at the Co. Societies, except what had taken premiums at the local societies. The competition should be between the town associations, who should report to the parent or county society. He mentioned also the establishment of the Board of Agriculture, as calculated to accomplish great good, and spoke in an eloquent and impressive manner.

Hon. EDWARD EVERETT followed in a most touching, eloquent, and finished speech, of which a mere abstract, such alone as we should be able to give, would by no means do justice. He alluded most beautifully to the season of the year, and the fine scenery by which we were surrounded. His ride in the morning through the meadows, was described only as Edward Everett could do it. He alluded to several important requisitions needed to improve our farming, as well as the means by which it had already become so universally developed. He alluded in most glowing terms to the connection of Manufactures and Agriculture, and prophecied of the rapid growth of the new manufacturing city of Holyoke,—that ere the young generation now coming on became wrinkled by age, a population of 50,000 would be gathered there. The whole address, so eloquent, so beautiful, so chaste, chained, enraptured and charmed the audience, who received it with frequent bursts of applause. At its close, the Secretary offered a sentiment complimentary to Lieut. Gov. Cushman, who was speaking when we left.—*Amherst Express.*

For the New England Farmer.

EXPLANATION.

MR. EDITOR:—Dear Sir,—Devoting my life to the advancement of the farming interest by every honorable means, I am unwilling to stand in the wrong before your readers, as I am placed by your correspondent in giving an account of the Fair and Cattle Show of the Berkshire Agricultural Society. He says:—

"I forgot to mention that the society were very much disappointed in the *scientific report* that they had expected from Dr. Lee, of Washington, by his failure to appear. Here let me say, that those societies which are content with the *first cut only, from abroad*, made a great mistake. The *Address* should be a part of the *County Show*, as much as any other part of the exhibition, and those societies act wisely, who limit their appointments to citizens of their own county. In so doing they encourage their own citizens to qualify themselves to make good addresses. I have heard as good agricultural addresses from veteran hard-handed farmers, as I ever heard from any college-learned gentleman. I have more confidence in their instruction. I would not undervalue *gentleman farmers*, but I confidently say, no man can thoroughly understand and teach the business of cultivating the soil, who does not engage practically in it with his own hands."

The "disappointment" above referred to, arose from the fact that the invitation to address the society was verbal, and the understanding on my part that a written notice of the time of holding the Fair was to be sent to me. The worthy President of the society had a different impression, did not write, and the time of the Exhibition passed by without my knowing that I had, seemingly, failed to meet my engagement.

Having made a personal explanation, allow me to add a few words of comment on the pointed suggestions contained in the paragraph above quoted, which imply that some farmers are "gentlemen," and that some are not, as a class. Antagonism of this character, between cultivators of the soil, should not exist; and the spirit that cherishes it is alike unhappy, unjust, and unwise. To give to agricultural improvement a divided support, is not enough; it pre-eminently deserves the cordial and

earnest co-operation of every one who is willing to labor in its behalf. Such an union of effort can never be realized, nor the good that extensive and perfect co-operation can alone secure, if the friends of the farming interest divide themselves into two or more parties. So far from undervaluing daily experience in tillage and husbandry, or holding out a promise that the Berkshire county farmers should have "a scientific report" from me, I was engaged, when invited to address them, in cultivating with my own hands, (albeit not unused to such employment) my farm of 109 acres in the District of Columbia. For thirty years I have steadily contended that field culture and mental culture ought to be more closely associated, and warmly cherished together, than they now are; and to elevate equally both the science and practice of agriculture in all the States. I will not conceal my anxiety to see Massachusetts found an agricultural institution, for the education of her sons, in a way that shall make them at once the best farmers and the wisest statesmen. Judging from what has been seen at the federal metropolis during the last three or four years, American statesmanship is even more defective than American agriculture. The much-needed remedy is in the hands of the people, a large majority of whom are farmers. American statesmanship is a thing of their making; and if some of it does not require a second summer fallowing to kill the weeds and improve the harvest, I am no judge as to what kind of statesmen a nation of upright, intelligent farmers ought to produce. The men who follow the plow are not to be benefited by flattery. As sovereign rulers of this republic, they hear far more of their rights than of their duties. It is the unseen neglect of the latter that blights the character of Congress. Who more than stock-growers breed demagogues, and breed them downwards?

Of all things, our country most needs wise agricultural statesmen. How are they to be called into existence? Not from a lawyer's office; not from a doctor's office; not by trusting again advantages and appliances which have been too long tried, and found wanting.

Yours, truly, DANIEL LEE.

Rochester, N. Y., Oct. 25, 1852.

REMARKS.—We agree with the writer of the second paragraph above, "that no man can thoroughly understand and teach the business of cultivating the soil, who does not [or has not, Ed.] engaged practically in it with his own hands."—The story of the heiress whose husband desired her to have some brown bread baked, illustrates his position. She directed the cook to prepare the bread. How much of each kind of meal shall I use, madam? About *three pecks*, was the reply. So the gentleman and his lady had *six pecks* of rye and Indian for their breakfast! She had plenty of cook books, undoubtedly, but never knew practical experience. A man may be a practical farmer who never mows or holds the plow, but he cannot be a *thorough teacher of farmers* unless, at some time, he has had large personal experiences in all the details of the farm. He cannot state facts with confidence and force, because they are not the results of his own acts or observation, but the declaration of others.

Dr. LEE is not only a practical farmer, but [illegible] of the most intelligent and energetic among [illegible]. He clearly sees the wants of this great industrial [illegible] and knows how to meet them. As editor of the *Genesee Farmer*, he is exerting an important influence in the land, while he is scarcely doing less by his active personal efforts.

Our correspondent "P." is one of New England's well-known and honored sons, generous and high-minded, and we are confident would not indulge in any criticism which he thought unjust or unfair.

For the New England Farmer.

THINGS UNSEASONABLE OR WRONG.

MR. EDITOR:—"Hints" are not often welcome to editors, unless administered in the form of "mint drops;" yet I will offer a few for your consideration.

Your useful and interesting paper contains many facts and suggestions for practical use, but not always applicable to the present time. Peradventure, in January, we shall see "How to raise early cucumbers,"—"When to cut wheat,"—"To make ice cream," &c., or in July, it may be, "The best method of preserving winter apples,"—"A model Ice-house,"—or "How to restore frozen potatoes," &c.,—and we rejoice in the possession of such information, which we are firmly intending at the proper time to use. But when that time arrives, a thousand other excellent articles have driven those useful suggestions from our mind, or so confused our memory, that we cannot recollect them with sufficient accuracy, nor refer to the paper in which each is to be found. Consequently much of the desired benefit is lost.

What I propose is, that each number have its proper index, perhaps at the top of the first column, for convenient reference, so that to refer to any desired article at a future time, it may not be necessary to "rummage" through the whole paper. At the end of the year, the matter for each index, if not distributed, would be ready to be collected into one. If I have not tried your patience by such a long "hint" to begin with, I would suggest another, viz.:—that care be taken, in copying from other papers, to take nothing of an irreverent or profane character. In your number for last week, a *witty* and *profane* Irishman uses the term "By Jabers"—plainly, "By Jesus."—Such an expression I am not willing that any in my family should see, especially through my instrumentality. This expression is not the first of the kind in your paper, nor are such instances wanting in professedly religious papers; but I must charge it to inadvertence, though this makes it none the less an evil.

The more common practice in respectable papers, of quoting a passage of Scripture to give a "point to wit," I may be charged with "puritanism" in condemning, though indeed it does cause me pain, and seems to me wrong in the sight of God.

Having "broken the ice," and found all the fault necessary,—(for indeed I heartily place your paper as high as the highest in excellence among

those for which I subscribe,)—if agreeable, you may hear again on more pleasant topics, from

Your humble servant, UNCLE JOHN.

New Englandville, Oct. 20, 1852.

REMARKS.—"Uncle John" has our sincere thanks for his hints. They are evidence that he finds interest in the paper; we assure him that we can find a *cash value* in them. Convenient to our elbow, we have a draw labeled with the names of the months, into which we place such communications as appear to us unseasonable, with the intention of publishing at a time when they would have more direct application, and consequently more force. But not appearing as soon as expected by their authors, some imagine that they have been rejected, others, that the editor is careless or indifferent, while a third takes the trouble to write and ask why his communication does not appear! These writers have been experimenting or thinking intently, perhaps, upon the subject which they discuss and are desirous of giving the world the benefit of their results while fresh upon the mind, and in this way matters are sometimes introduced which cannot be practically acted upon at the time. Does "Uncle John" see our monthly issue? In that he will find an index to each number; and in the bound volumes a copious index, alliterated, and arranged with care.

Your suggestions upon the moral aspect of the paper are just, and shall be properly considered. We shall be happy to hear from you, as suggested.

THE RIND OF FRUIT INDIGESTIBLE.

This fact cannot be too strongly impressed upon the public. It applies to all fruit, without exception, and includes also, the pellicle or skin of kernels and nuts of all kinds. The edible part of fruit is particularly delicate, and liable to rapid decomposition if exposed to the atmosphere; it is, therefore, a provision of nature to place a strong and impervious coating over it, as a protection against accident, and to prevent insect enemies from destroying the seed within. The skin of all the plum tribe is wonderfully strong, compared with its substance, and resists the action of water and many solvents in a remarkable manner. If not thoroughly masticated before taken into the stomach, the rind of plums is rarely, if ever, dissolved by the gastric juice. In some cases, pieces of it adhere to the coats of the stomach, the same as wet paper clings to the bodies, causing sickness and other inconvenience. Dried raisins and currants are particularly included in these remarks, showing the best reasons for placing the fruit upon the chopping board with the suet in making a pudding of them, for if a dried currant passes into the stomach whole, it is never digested at all. When horses eat oats or beans that have not been through a crushing mill, much of this food is swallowed whole, and in this state, being perfectly indigestible, the husk or pellicle resisting the advents of the stomach, there is so much loss to nutrition. Birds, being destitute of teeth, are provided with the apparatus for grinding their seed, namely, with the gizzard, through which the seed passes, and is crushed prior to digestion. The peels of apples and pears should always be cast away. Oranges we need not mention, as this is always done. Orleans, greengages, damsons, and all plums, should be carefully skinned if eaten raw, and if put into tarts, they should be crushed before cooking. Nuts are as indigestible as we could desire, if the brown skin be not removed or blanched, as almonds are generally treated.

For the New England Farmer.

IMPROVEMENT OF OLD PASTURES.

BY FREDERICK HOLBROOK.

MY FRIEND, MR. BROWN:—I have read Mr. French's very interesting and valuable article upon the renovation of old pastures, published in the weekly *Farmer*, bearing date Sept. 25th. He states the causes of the deterioration of pastures so perspicuously, that any farmer may comprehend them. His article is particularly valuable and timely to those whose pastures, tired of producing the cultivated grasses, now only yield a poor herbage, so deficient in the elements of nutrition necessary for the healthy support of milch cows as to expose them to attack by the "bone disorder." I am pursuaded that this disease is more and more widely developing itself in the older settled districts of New England; and observation convinces me that a great majority of those farmers whose milch cows begin to show symptoms of the disease, are utterly in the fog as to the causes and a remedy. Would that all such might read and ponder this article, and be practically influenced by it; they would no longer be in doubt as to the origin of the disorder, and would find the remedy prescribed effectual. In common with my friend, Mr. French, I feel a great interest in the improvement of old pastures; and with your permission, and in the hope of aiding him somewhat in his laudable effort to promote improvement in this "much neglected department of farming," I will now state some modes of restoring fertility to such lands, known to me, by practice or observation, to be profitable and efficient.

And first, I feel bound to speak well of green crops, plowed in, for the improvement of poor pastures. Green crops containing in their substance not only all they have drawn from the soil, but also a great part of what they have taken from the atmosphere, when plowed in, necessarily add more to the soil than they take from it. I have found that successive green crops, plowed in, refresh and invigorate an old pasture very much. I will cite a case:

A field of four acres, a thin yellow loam, before coming under my management had been exhausted by successive crops of rye, and left to itself, had in time acquired a thin herbage, which in the spring tried to look green, but in early summer became brown and dry, and for the remainder of the season was valueless. The field being situated upon a high hill, distant from home, and difficult of access with the manure-cart, I was for two or three years in doubt as to what means I could profitably adopt to enrich it. After revolving various plans, I finally determined to test the fertilizing power of green crops, plowed in. My object being two-fold, to test the merits of such manuring, as well as to enrich my land, I concluded

to harvest the first and last crop sowed, and thus obtain a demonstration of the natural productiveness of the soil and of the increase by reason of the crops plowed in. Otherwise, I should not have required a grain-crop from the poor old field at all.

In the month of June, when the little herbage the land bore was at its greatest height, it was turned under, and three pecks of buckwheat were sown to the acre and harrowed in. The crop was harvested in the autumn, yielding eight bushels of grain per acre. In May following, the land was again plowed, one bushel of buckwheat was sown on each acre, and harrowed in. As soon as the crop blossomed, it was plowed in. A heavy chain, attached to the plow-beam, immediately forward of the standard of the mould-board, and to the off-end of the evener, lopped the stalks down so that they were pretty well covered up. The field was then rolled; the same quantity of buckwheat was again sowed; in September, the crop blossomed and was plowed in, the land was then rolled, and sowed with one and a-half bushels of winter rye to the acre. In June following, the rye had made a remarkably thick, luxuriant growth, and was plowed in; the land was then rolled, sowed with one bushel of buckwheat, together with six pounds of red clover, a peck of herds-grass, and two pecks of red-top seeds to each acre, and harrowed and rolled. The buckwheat was harvested, and yielded eighteen bushels of grain to the acre,—being an increase of more than one hundred per cent. over the first crop. At the time of sowing the grass seed, the soil had been brought to a fine mellow tilth, so that they germinated well; the following season being sufficiently moist, the young grass came on well; and the field became covered with a valuable sward, which it has ever since maintained —now some ten years. Any half acre of the land has been worth more, as pasture, than the four acres were previous to the manuring. I ought further to state, that in skinning the land with rye, the plowing had been about four inches deep; and that in the course of turning in the green crops, the plow was gradually introduced into the subsoil, until at last three inches in depth were mingled with the four inches of top-soil, and with the vegetable manure plowed in. The expense of the three crops turned in, and of the grass-seed and getting it in, was ten dollars and twenty cents per acre, reckoning labor and materials at the prices they were then going at.

The late Judge Hayes, of South Berwick, Me., was a pioneer in the improvement of worn-out land. His pastures were not so hilly and stony as to prevent plowing, though they were more or less rolling of surface. For twenty-five years, he had been in the practice of plowing them once in six or seven years, turning the sod at convenient times after haying, then harrowing and sowing herds-grass and red-top seeds, with winter rye, and red and white clover seeds on a late snow the following spring. The rye was fed off by the cattle while the young grass was coming on to cover the land. The mosses, small bushes, ferns, sour grasses, and droppings of the cattle being placed beneath, and a fresh surface brought up; and the gradually decaying sod keeping the soil mellow, as well as furnishing support to the new seeding; the quality and quantity of the feed gradually improved. On spots where wild plants and sour herbage originally flourished, the cultivated grasses were brought in. In this way most of the pasture-fields had been gone over three or four times during the life-time of my late friend; and he confidently recommended such practice to others, as worthy of invitation.

Pasture-fields that are pretty smooth, not of very rolling surface, and not too far from home, may be advantageously improved by an occasional manuring and a rotation of crops. In other words, they may be plowed, manured, tilled one or two years in hoed crops, then laid down to a variety of grasses with grain, mowed one or two years and pastured four or five years, or the mowing may be omitted, and they may be pastured six to eight years. Managed in this way, they will, while in grass, yield much more feed, proportionately, than they would if kept perpetually in grass. A portion of my pasture-fields being smooth enough to plow, and conveniently situated for being fenced, and some of the tillage land affording good water for stock, I occasionally pasture a tillage-field while putting a piece of pasture land through a course of plowing, manuring, a rotation of crops, and getting it down to grass again. Where the requisite circumstances are favorable enough to make this kind of tillage conveniently practicable, it is very good farming, leaving one with less poor, unproductive land than almost any other course would. Especially is it advantageous in the vicinity of populous villages, where pasturage is in great demand and commands a high price. I have particularly seen the advantage of this mode of culture during the late dry summer. The fields recently seeded anew to pasture, after a manuring and rotation of crops, kept green and supplied my cows with fresh feed, while the old pastures were parched by the drought, and became completely used up for the season.

Worn-out pastures, however rough and stony, may be made very productive by planting them with the common yellow locust tree. A completely triumphant illustration of the great value of the locust as an improver of poor land, may be seen on the farm of Clark Rice, Esq., in Dummerston, Vt. I have just returned from a ride to his place, whither I went for the purpose of observing his improvement in this way in order to be able to speak of them in this communication.

A poor old sand knoll, that could not cover itself with grass, and bearing little vegetation of any kind, was fifteen years ago planted with young locust trees. It has now an open, pretty grove of trees standing upon it, and its surface is covered with a fine grass sward, which this year gave a good swarth, and now has a taller and thicker aftermath upon it than there is upon any of the mowing fields of the farm. The locust has made the improvement; nothing having been done for the land except to plant the trees. Some of the trees are ten inches through at the butt, and would make excellent posts for fences.

The farm has also another grove of locusts, twelve years old, standing upon a high ledgy knoll, the rock being in some places bare and in others from six to twelve inches below the surface. The larger trees growing here would now make good posts. A thick green growth of grass covers the surface, wherever there is any soil above the rock. A tillage field adjoining, which has always been well cared for, has not as much aftermath upon it as the knoll has.

Mr. Rice is so well satisfied with the improvement he has effected upon these knolls, that he intends to raise young locust trees enough to set over several acres of poor land adjoining. He sets his trees about two rods apart, and finds that sprouts enough spring up between them to cover the land sufficiently. Cattle being very fond of the foliage of the locust, he finds it necessary to keep them off the land for four or five years, or until the young trees have grown tall enough to be out of danger. But calves and sheep may run where the young trees are, without danger.

Walking about in these groves, my attention was particularly attracted by the soft velvety feeling of the sward under foot; it was like stepping upon down; and upon examination, I found a mat of locust leaves covering the ground, beneath the tall grass and all about its roots, convincing me that the grass could never become bound out.—The foliage of the locust does not injure the quality, nor does its shade diminish the quantity of grass, like most other trees; but on the contrary, the grass is of a deep green color and luxuriant growth in the shadiest places in these groves, and is greedily eaten by the cattle.

A great excellence of this method of improvement is, its adaptation to rough, stony, ledgy lands, covering them with a valuable and abundant herbage, besides providing the very best of fencing timber. Why grass grows so luxuriantly beneath the shade of the locust, is so well relished by cattle, and why the trees endow the land so remarkably with fertility, is more than I know. The facts are unquestionably so. The roots of the locust run deep, and perhaps draw considerable support for the tree from below the surface soil; then the leaf is very small, and heavy of its size, lying still where it falls, settling down about the roots of the grass and enriching the whole surface, while the leaves of most other trees are blown about by the winds, collecting in hollows or other sheltered places. There are but few forest trees whose leaves could stay on Mr. Rice's knolls; the raking winds to which they would be exposed would sweep them off.

Mr. Rice has also a young chestnut grove covering a hill-side of four acres. The land was in low condition at the time of planting the grove. Twelve years ago, in the month of October, it was plowed and sowed with winter rye, and at the same time chestnuts were picked from trees and planted among the rye, one nut in a place, in rows four feet apart each way. A scanty crop of rye was harvested the next year, and then the land was given up to the young trees, and cattle were ever after kept out. If to do again, Mr. Rice would omit sowing rye, it being too exhausting to such poor land, and hardly worth harvesting. It was very rare to find a young tree missing where a nut had been planted. The original sprout from the nut being invariably crooked and dwarfish, it was after four or five years' growth, cut down, and straight, handsome sprouts shot up from the stump, which, having the advantage of the original root to support them, grew rapidly. But even where the original tree did not happen to get cut down, it ultimately gave place to a straight thrifty sprout. In a very few years more, this young grove will afford valuable timber for fencing and building purposes. The land is worth much more than it would be, had it lain till this time in old pasture.

Where wood and timber are scarce, and there are rough pastures, so exhausted as to yield little feed of much value, and so rough and stony as to preclude cultivation, they may unquestionably be planted with trees and eventually made productive as forests, thus ultimately enhancing the income of the farm as well as the value of the homestead, whether to sell or hand down to children. But I am now opening a branch of my subject which alone requires a long article for its proper discussion; and as my present communication is already too long, I will stop with the bare suggestion of it. I am persuaded the time has come here in New England for the profitable expenditure of capital and labor in the improvement of old worn-out pastures. In quite a number of localities, the farmer is narrowed down to the question, whether he will improve his pastures or abandon the keeping of milch cows and the making of butter and cheese. Probably some mode or modes of improvement may be adopted that will prove efficient and profitable. F. H.

Brattleboro', Oct. 4, 1852.

A NEW WHETSTONE.

We would call the attention of the public to the advertisement in another column of this paper, of Messrs. Webster & Co., respecting the celebrated *Talacre Burr Scythe* and *Grind Stones*, the popularity of which seems to be gaining ground very fast in this country. These stones, especially the scythe stones, seem to be particularly adapted to the use for which they were made. The sharpness of their grit is valuable, as it cuts the *gum* from the scythe, and from the stone which always collects on them when the dew is off the grass, thus leaving both entirely free and clean. The shape being oblong, or larger in the middle than at the ends, remedies in great degree the liability to whet the scythe across the edge, which in all beginners is a prevailing fault. The size being larger than the common stones, does its work more thoroughly, and does not require to be used so often, which will pay for the trouble of carrying. These properties combined, will fully compensate for the greater cost, besides the fact that they will last much longer than the old kind. They are particularly adapted to those fields, where the grass is heavy, and where large scythes are used.

It will be borne in mind that these are a *Welsh article*, and in order to have a supply on hand for the coming season, orders for them should be sent to the agents at once, that a supply may be imported to meet the demand at home and abroad.

These stones took the *first premium* at the late *World's Fair* in London, by the side of *twelve competitors*, which is a pretty good guarantee that they are valuable. Any further information respecting them, will be given by the agents upon application by letter, and samples forwarded in all cases where it is practicable. Those who intend to keep a stock, should look into this, and be prepared for the coming season.

For the New England Farmer.

FEEDING APPLES TO COWS.

Mr. Editor: — A correspondent from Groton wishes to know if any of your readers have made experiments on feeding apples to cows. I thought this question had been settled a long time ago, that apples were good food for cows and stock of all kinds, including swine; but I have found, by conversing with many of the farmers, that they still have doubts. The old prejudice still lingers, that apples dry up the milk. I have tried the experiment of feeding apples to milch cows for nearly thirty years, and mostly sour apples; there is no food they are more fond of, and I think it would be profitable for farmers to set out orchards on purpose for cattle. It would be cheaper food than any thing else they could raise; but I would not recommend this, but rather to set out the best of fruit, and give the cattle the refuse, sending none but the best to market, which will always command a good price. There is no danger of overstocking the market with the best of fruit.

I have this year tried what quantity a cow would eat and not hurt her, but do her good. I began by feeding a small quantity at first, and increased until I gave them a bushel each per day. This quantity, so far from hurting the cows, has done them a great deal of good; one of them is fat enough for the butcher; and their milk was never better. When cows are fed with apples, or roots, or any thing of the kind, they should be fed regularly, and at the same time of day; if not, they will neglect to feed on poorer food, and stand and wait; by neglecting this precaution, many farmers have got an idea that green stalks and roots make cows poor.

Yours with respect, Benjamin Wheeler.
Framingham, Nov. 1, 1852.

CRANBERRIES.

The cultivation of this excellent and wholesome fruit is receiving more attention in this State than ever before. No farm product has quicker sales, at high prices, than this. It is easily transported, keeps a long time, and may be prepared for the table in various and most acceptable ways. As a preserve, to be used in tarts, as a jelly, a sauce for the table, or for pies, it is scarcely surpassed by any fruit that grows. It is eagerly sought for by all, and the demand is rapidly increasing for exportation, even while the home demand is not half supplied. The low price of sugar has also had a tendency to increase the use of them. Mixed with apple, they give the latter a fine flavor and sprightly acid, and are preferred by some to being used alone.

By reports made to the agricultural society in Middlesex county, it appears that the cranberry may be produced abundantly by artificial cultivation; that is, by plowing swamps until the bushes are dead, then tearing them out roots and all, and planting the cranberry vines in sods throughout the reclaimed swamp. We have seen them raised in great abundance, and of fine size and flavor, in this manner.

In listening to the reports made to the Barnstable society at Sandwich, on Wednesday last, we were interested in one on the subject of cranberries, by Mr. O. Brooks, Jr. He said "the fact should ever be kept in mind that there is probably no place in the world so favorably situated for the production of the cranberry as Cape Cod.

"The growth of this fruit is confined to very narrow limits of latitude. If we go very far south or north of the latitude of the Cape we find it degenerates very rapidly in size, quality and quantity. It is stated on good authority, that the best specimens of this article in the markets of London, are labeled 'Cape Cod Cranberries.'

"Peat swamps exactly adapted to the cultivation of the cranberry abound to a greater extent on the Cape than in any other part of New England.

"The high price which good cranberries always command (being at present $3,50 per bushel) shows that it is a most profitable crop.

"As stated by Mr. Alvin Cahoon, of Harwick, who has probably done as much in growing the cranberry as any other man on the Cape, it appears that an average crop with him is *one bushel to the square rod*—which makes the good round sum of $560 to the acre.

"The mode of preparing bogs consists in the simple process of getting the white sand on the surface, placing the turf underneath.

"A mixture of mud and sand he has found to be congenial to the growth of the vine, but such a soil also encourages the growth of the cranberries' worst enemy, the rushes."

We invite Mr. Brooks and Mr. Cahoon to give us such further facts in relation to the cultivation of this plant as they may have it in their power to impart. It is the particulars—the details—of the success which those who undertake it anew will need.

For the New England Farmer.

NATIONAL BOTANIC GARDEN.

Mr. Brown:—The establishment of an American Botanic Garden at or near Washington, which should embrace every species indigenous to the United States and Territories, so far as they have been discovered, would redound to the honor of the nation and advance the cause of natural science.—There should be, at least, one hundred acres of land devoted to the purpose, including various kinds of soil adapted to the wants of different species of plants, and a sheet of water for aquatics as well as extensive conservatories and greenhouses, for growing such as do not withstand the climate. We have already many thousand species known to the botanist, and new discoveries and the spirit of adventure with which the world is rife at the present day will make daily additions to the catalogue. It therefore seems desirable that they should be collected together, so far as practicable, for the purpose of examination and reference as well as to exhibit to the world at one

view the extensive and varied productions of the American Flora. The enterprise would be attended with much expense in the outset, and would require many men and an annual outlay of money to keep it in order; but it would be money and labor well expended, and should be appropriated liberally, as the cause of agriculture would be benefited and the wealth of the nation increased in consequence. But were we to receive no pecuniary return, a National Garden should be established on a scale worthy the American people—one which would be the resort of scientific men of all nations, and who would know how to appreciate the favor of being permitted to examine all our plants in one collection.

There is no doubt there are kinds of grain, vegetables and fruits yet undiscovered in our new territories, which will prove equal, and perhaps superior, to any now grown, which might be experimented upon in a garden of this kind, and if found worthy, sent out for cultivation.

Many medicinal plants, dye woods and other productions, useful in commerce or the arts, are now growing in our western wilderness, unknown to any but the lonely Indian, who knows but little of their value. It appears as though it would be expedient for our government to send out an expedition to the unexplored regions of the West and other locations to examine the botany and collect seeds and plants for experiment; it would be a rich field for the student of Nature, and would be attended with much instruction.

The resources of America are as yet undeveloped, but the spirit of investigation is abroad, and our vegetable productions will be sought out and proved, and many new productions will ere long be added to the already numerous list.

Leominster, 1852. O. V. Hill.

Remarks.—We fully agree in opinion with the above, as to the establishment of a National Botanic Garden. *That* may be done by Congress, without political danger, and without any very great expense. A Botanic and Zoological Garden ought to be established at Washington, and might be filled with all manner of animals and plants by our naval officers who are constantly returning home from every part of the world. It would cost something, certainly, but the money would be mostly expended among a hard-working class of our population, and their establishment would promote the knowledge of plants and animals and gratify the tastes of the people.

Whatever objections may be made to the establishment of agricultural colleges, (and we think many reasonable ones may be) there would probably be but little difference in opinion in regard to a garden of plants and animals on a somewhat extensive scale.

University of Vermont.—Through the politeness of Mr. E. R. H. Howard, we have received a catalogue of the officers and students of this University. It is one of the handsomest specimens of printing we have ever seen, and is from the press of Messrs. Stacy & Jameson, of Burlington. Whole number of students 135.

AUTUMN LEAVES.

O, Autumn leaves!
Summer's bright roses one by one have past;
Gone is the beauty of the golden sheaves;
Ye come at last,
Prophets of Winter hours approaching fast!

O, Autumn leaves!
Why look ye thus so brilliant in decay?
Why, for the dying year when Nature grieves,
Are ye so gay
With richer hues than graced her op'ning day?

O, Autumn leaves!
Ye, as ye don your crimson robes of mirth,
While dull decay a moment scarce reprieves
Your forms from earth—
Ye tell us, happier far is death than birth!

O, Autumn leaves!
Like you the dying saint in splendor grows;
With each faint pulse of life that feebly heaves
At evening's close,
His ev'ry grace with added glory grows.

O, Autumn leaves!
Like you, he casts aside all hues of gloom,
And of his bright'ning hopes a chaplet weaves
That o'er his tomb
Threws the glad promise of eternal bloom.

For the New England Farmer.

INFLUENCE OF THE FRUIT STOCK.

Mr. Editor:—A correspondent a few weeks ago made inquiries relative to the effect of the stock on fruit. He appears to question whether it can have any. Though the subject is far from being clear or definite in my mind, I will take the opportunity of making a few remarks. In the first place, I think it a fixed fact that the stock does affect the quality, and perhaps the color and size of the fruit—partly depending upon the nature of the stock and the graft, and their relative size and power. What makes one apple sour and another sweet? It must be the nature of the ingredients which the stock has the power of accumulating from the soil and the atmosphere; else all apples would be alike. Eight-tenths of the apple are composed of water (or acidulated juice,) and nearly two-tenths of carbon, which forms the pulp. The juice of the apple is partly drawn through the stock from the moisture of the earth, and partly through the leaves from the moisture of the atmosphere. Where a sweet apple stock greatly preponderates over the bearing graft of a sour apple, we should suppose the fruit would be modified by an increase of saccharine matter, so long as it retains its preponderance, and that the fruit of the graft would approach its original flavor in proportion as it gained in head. Such is, I think, the result of observation where extremes have been united. Where the fruit of the stock and the graft is similar in acidity, of course such influence is not perceived. I am inclined to believe that where a fruit is under the influence of the stock, should scions be cut and inserted on a stock of similar acidity, a distinct variety of fruit may be secured. Why we do not see more distinctly the influence of a grafted fruit, is, I apprehend, from the circumstance that the majority of stocks and scions are sub-acid, and not opposite in their nature.

Fruit elaborates itself principally in the open air, or draws in its nourishment through its own leaves; and were it not from this law there would be but little fidelity in the scion. But its accretion

is not wholly from the atmosphere, and hence, from circumstances above enumerated, the fruit is sometimes affected by the stock. I know of a gentleman who had a seedling pear which he has never been able to produce on any other stock. I have seen it stated in some back number of the *New England Farmer*, of a gentleman who grafted the Greening (I think) into one of the small branches of a thrifty tree, when its fruit gradually lost its original character and became identical with that of the original stock. Many pears are said to improve in flavor on the quince.

Cole says the Seckel grows larger, but poorer on the apple. A nurseryman once told the writer, that the Bartlett pear was not so good on the quince—which will be generally denied. The Red Russet, frequently alluded to in this journal, was grown on a Baldwin scion.

Being reminded of the utility of brevity, I will just observe, that though the stock does affect the fruit in a degree, under some circumstances, with the least care there is no danger of any fruit becoming merged or exterminated by continued re-grafting. D. W. L.

Roxbury, Oct., 1852.

☞ See article in another column entitled *Red Russet*.—Ed.

OLD APPLE TREES.

Apple trees, when very aged, are generally "hewn down and cast into the fire" as worthless "cumberers of the ground." The longevity, however, which is characteristic of this tree, prevents the necessity of extirpating it very often, and it is, indeed, extremely questionable whether in most cases it might not be perpetuated, like the olive trees of Athens, and the celebrated mulberry at Stratford-on-Avon, till its duration should be computed by centuries, rather than by years. Of this longevity we have a very interesting illustration in the case of the apple tree planted by Peregrine White, in the town of Marshfield, in this State, and of which a drawing, said to be very accurate, was published not long since in this paper. Mr. White was the first male child, of English parentage, born in New England, and died in Marshfield, in 1704, aged 83. The tree was planted probably about the year 1648, consequently is now *two hundred and four years old*, but still vigorous, and has produced "fruit every year without interruption" as far as the memory of the present owner—one of Mr. W.'s descendants of the fifth generation, extends.

In resucitating old trees, or those which have become unfruitful from the combined effects of age and disease, it is proper in the first place thoroughly to cleanse the bark, especially in the vicinity of the ground, for it is at that point that the borer commits his depredations, and there also many other insects seek and find their hybernacular, or winter quarters. If the bark is very rough, as is most commonly the case in trees that are verging to senility, it is well to obtain some appropriate instrument and remove it, taking care not to injure the alburnum, or to trespass upon the healthy parts of the bark beneath the scaly surface on the outside, which alone should be detached. This decortication must be performed with a nice hand, for although some orchardists advocate the entire denuding of the trunks of old trees, it is found that scarification is a most serious injury, especially where the system is weak and relaxed.

The coarse, mossy bark on the limbs should also be removed, and the whole washed and scrubbed vigorously with ashes and water till the surface assumes a smooth and fresh appearance. If there are any decayed places on the trunk, resulting from internal or external wounds, they should be cleansed, and the rotten matter removed, and the orifice filled with a composition of fresh cow dung, one part; clay, one part; leached house ashes, one part; and a little salt and plaster—the whole moistened with urine, and worked till it can be spread easily, and is sufficiently plastic to adhere to the place where it is applied. All old limbs should be removed by sawing; the stump must then be made perfectly smooth, and covered with a thin wafer of grafting cement. In no case should the amputation be at a distance from the point of junction, but as close thereto as the saw can be made to run.

As to the tops, it is better, perhaps, to remove a portion of the limbs, as the energy of the roots and trunk may not be adequate to secure the necessary support: but we would by no means advise the removal of many of the limbs, especially those of the larger size near the base of the top. By cutting out mostly the vertical shoots, and retaining the horizontal ones—thus giving the top a shape in some degree resembling an umbrella reversed, the sun-light will be let in, and new wood will be developed more rapidly and vigorously than if an opposite course of pruning should be adopted. As the new wood progresses, the older limbs may be removed, till the top presents wholly a new growth.

Where there is a single tree, or there are a few trees valued for their particular location or kind of fruit, the roots should be laid bare for at least six feet from the trunk, by a careful removal of the soil to the depth of one foot. The excavation must then be filled in with the very best and richest description of garden loam, mixed with compost in which lime and wood ashes—leached or unleached—constitute a large share, and the surface covered with manure, the best that can be procured.

In this way, an old tree may be resuscitated, and, if desirable, grafted with any variety of improved fruit, or left to produce its own, as the operator may see fit to direct. One thing against which we think too much cannot be said, is the practice—now quite prevalent—of plowing among

orchards with as little care as in any common mowing field. It has been asserted by some that this is a benefit to the trees—that it causes them to send out more shoots, and increase the constitutional vigor and fecundity of the trees! Why it should do so is a question which no one, perhaps, can rationally resolve. It seems as natural to suppose that the wounding or abscision of the lateral roots, in the case of a standing and bearing fruit tree, should prove injurious as in that of a young tree which is being removed for the purpose of transplantation. The more roots in either case the better, we contend, and if orchards *are tilled*, let the soil be plowed lightly, and the operation of inverting the sward conducted with the greatest care. But before setting an orchard the ground should be thoroughly subsoiled, cultivated and manured.

November, if the weather is moderate, is as good a time, perhaps, as any month in the year for these operations.

LEOMINSTER CATTLE SHOW.

The Farmers' and Mechanics' Association of Leominster held their first Annual Cattle Show on Wednesday, Sept. 29. This Association was formed in November, 1851, and is strictly a town affair, none being permitted to be members except citizens of Leominster. There are now 239 members belonging to the society, and it is now in a very flourishing condition. The exhibition of fruits, flowers and fancy and manufactured articles was in the new Town Hall, a fine edifice erected last year.

The Hall presented a very beautiful appearance. Around the rostrum were hung some fine ornamental pictures.

A fine display of stuffed birds was contributed by Dr. Pierce, and Capt. C. Nicholson furnished two cases of birds and insects from Brazil, which attracted much attention.

The exhibition of fruit was very fine, and was well worthy of the farmers of Leominster; indeed we have seldom seen a better display.

Specimens of patent leather manufactured in Leominster were exhibited by N. W. Stoddard.

The comb makers of Leominster made a fine show of their handiwork. G. & A. Morse had fine specimens of every variety, from the pocket-comb to the elaborate back-comb. Wakefield, Prescott & Co. also made a fine display. Jonas Colburn contributed 22 different patterns of head-combs. Tisdale & Fairbank also had some beautiful specimens.

Ladies of Leominister contributed for the occasion some very fine specimens of bread. The loaves were large, and looked nice enough for any man.

The hall and tables were finely decorated with flowers, and presented a very fine appearance. The tables in particular were well arranged, and did much credit to the Committee. The hall was filled to overflowing, and so large was the attendance, that it was rather difficult to get a peep at the many wonders exhibited.

At 10 o'clock, the drawing match took place on a hill near the Town Hall. Nine teams were entered. The weight of the cart drawn with its load was 4780 lbs., and the match attracted a great crowd.

Francis Wayland, Jr., of Worcester, delivered the address. Joseph Mason, Esq., was to have delivered the annual address, but was prevented by illness.

Mr. Wayland, after a brief introduction, remarked that farmers too often complain that while others are getting rich, while the merchant and mechanic are coining money and growing opulent, those engaged in agricultural pursuits continue poor, notwithstanding all their attempts to get along in the world. He thought the complaint a just one, and endeavored to show what caused this difference of success. He thought it was because farmers as a class are behind the age. They are willing to plod on in the paths trod by their fathers and fathers' fathers. They are content to go on as they have for years without attempting to make any improvements. He thought science should be brought in and made subservient to the interests of the farmers. He thought increased investigations and experiments, a greater scope of reading, more attention to the new discoveries that are continually being made, and a deeper pursuit of those sciences which may be made to subserve the interest of the agricultural community would make a great change for the better.

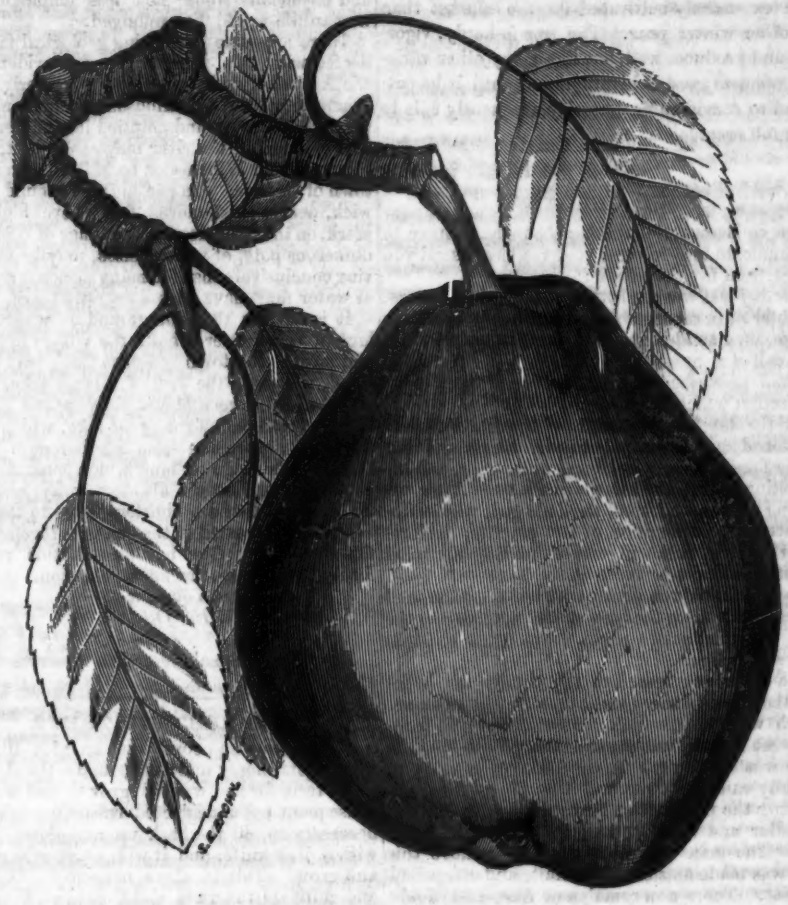
Abel C. Wilder, Esq., of Leominster, then read a Poem, entitled "Farmers' and Mechanics' Associations." Although a farmer, Mr. Wilder pre sented a very pleasing poem, and his production elicited much praise.

At one o'clock, a procession was formed and the company marched to Yale's tent which had been spread on the common. About 500 persons were seated at the tables. The entertainment was provided by E. R. Balch, and did credit to the caterer.

At 3 o'clock a procession of 57 horses and colts, and 80 yoke of oxen, marched through the principal streets of the town, and the exhibition then closed.

The Show attracted a large crowd of visitors, and the town presented a very animated appearance. The exhibition was very fine, and the citizens of Leominster may well feel proud of their First Cattle Show. Everything passed off admirably, and nothing occurred to mar the pleasure of the occasion. The Leominster Farmers' and Mechanics' Association may now be considered on a firm basis, and if we mistake not, will exert an influence on the interests of the town which will prove highly beneficial.—*Traveller.*

BENJAMIN FRANKLIN: A BOOK FOR THE YOUNG AND OLD: FOR ALL. Compiled, printed and published by SAMUEL HUTCHINS, Cambridge, 1852.—This is a duodecimo book of 36 pages, mostly compiled from the writings of Dr. Franklin, but interspersed with such introductory remarks and explanations as to give the extracts peculiar application and force. It ought to be carefully read, many times over, by every boy and girl in the country. It would be the means of establishing many a good principle.



THE GLOUT MORCEAU PEAR.

BEURRE D'AREMBERG,
BEURRE D'HARDENPONT,
LOMBARD,
} *Of Foreign Collections.*

The original of the above portrait was furnished us by Col. WILDER, and was grown in his garden at Dorchester. This gentleman's skill in horticultural matters, and the zeal and interest he manifests in everything that relates to the garden and the farm, are doing much for the cause throughout New England.

We have other copies of specimens of fine fruit from Col. WILDER's garden, drawn from life, which we shall give from time to time, and we improve this opportunity to express our thanks for the aid so cheerfully afforded us in this department of the *Farmer*.

The Glout Morceau pear has been under cultivation in the vicinity of Boston for fifteen or twenty years. It has not, however, until recently, been sufficiently known or appreciated, but it is now generally admitted to be one of the most delicious of our winter sorts, and commands as high a price in the market as any other variety.

Fruit; above medium size, frequently large. Form; obtuse pyriform, inclining to oval, tapering rather abruptly towards the base, neck short and thick, outline and surface somewhat irregular. Stem; inserted in a slight depression about one inch in length, but in luxuriant specimens it is frequently short and fleshy, having the peculiar knobby appearance of the Beurre d'Aremberg, with which it has so often been confounded. Calyx; open, sunk in moderately deep coarsely furrowed basin. Color; pale lemon yellow, with occasional traces of russet, but seldom with any red; skin smooth and handsome. Flesh; white, fine grained, buttery and melting, with a mellow-like rich saccharine flavor; in unfavorable soils sometimes astringent. Season; December to January, keeps well.

The Glout Morceau is received from France, under the name of Beurre d' Aremberg, where it is more extensively cultivated for the market than any other winter pear. The tree is hardy, vigorous, and produces well, but like many other varieties, requires good cultivation, and until it has attained to considerable maturity, frequently fails to set a full crop.

For the New England Farmer.

FOUL CELLARS.

Friend Brown:—Thinking that what I have to communicate may interest your readers, I send you a page from my note-book:

One day last week, a little girl, aged eleven years, daughter of a respectable farmer, living near this village, died suddenly. The family physician had been called a number of times within a month, and had prescribed for nearly every member of the family, which was large.

On the day of the death of the child abovementioned, he was called to visit three children of the family, whom he found quite sick, and all exhibiting nearly the same symptoms. After attending to these, he found the little girl, who, without attracting the notice of her parents, had reclined upon a bed, and was exhibiting alarming symptoms.

He acquainted the family with her situation, and expressed his fears that she would not live out the day. She died before night. The other children still remain sick.

The doctor expressed to the family his belief that there was some local cause for the sickness. Search was made, which, for awhile, proved fruitless. At length, underneath the potato bin, the cause was discovered in the form of a mass of partially eaten potatoes and the offal of rats undergoing the putrifactive fermentation, and filling the cellar and whole house with a most offensive odor. The man who attempted to remove this mass was made so sick as to vomit, and compelled to desist. There now remains no reasonable doubt that the sickness of this family and the death of the child were caused by this decaying vegetable matter.

We are told that the curse causelessly does not come. No more does sickness. In the physical and in the moral world, every effect must have an adequate cause. And well would it be, if, when sickness invades our dwellings, instead of endeavoring to quiet our fears by sending for a physician and ejaculating, "'Tis a mysterious Providence," we would inquire after the cause, and set about removing it.

Housekeepers should learn from the above-mentioned fact, the importance of carefully removing from the cellar, in early spring, every vestige of vegetable matter that will be likely to decay.—The cellar should be kept scrupulously neat. Bins, casks, and all vessels, in which vegetables have been kept during the winter, should be cleansed and aired. The walls should be cleaned and whitewashed, at least once a year; and, if vermin are allowed to enter, deodorizing substances should be sprinkled about their haunts.

The same caution should be used at all times, but especially during the warm season, respecting sinks and vaults, and other places productive of offensive odors. Let this precaution be exercised, and dysentery and fevers would be less prevalent and physicians would find less employment and human life would be prolonged.

There are some interesting geological facts connected with this place. There is evidence that the Ashuelot, which now flows westerly into the Connecticut, through Hindsdale, once flowed south through Warwick and emptied into Miller's river. The channel of the river may easily be traced all the way from Winchester to Miller's river, in the town of Orange. On the highest ground in Warwick, nearly six hundred feet above high water mark, on the Ashuelot, in the village of Winchester, numerous pots, of various sizes, may be seen, proving conclusively that for many ages a large stream of water must have passed over that spot.

It is obvious that the ground on which the village of Winchester is built, the village of Swanzey and most of the town of Keene and a part of Marlboro', was once the bed of a large lake. When the barrier between Mount Holyoke and Tom gave way and drained off the great lake, which covered the valley, extending from Northampton to Brattleboro', the ridge of land which separates Winchester from Hinsdale also gave way, and the little Ashuelot found a shorter course to the Sound.

To one interested in the changes through which this mundane sphere has passed, this region affords abundant matter for speculation.

Yours, &c., H.

Winchester, N. H., Oct. 17.

Remarks.—The above article deserves especial attention.

BARKBOUND TREES.

Some over-wise people have an idea that when a tree gets mossy and barkbound—the latter another term for the want of growth and weakness, consequent upon neglected cultivation—it is only necessary to slit the bark up and down the stem with a jack-knife, and it will at once spread out and grow. This is sheer nonsense. Dig about and cultivate the roots, and the bark will take care of itself, with a scraping off the moss, and a washing of the stem with ley or soap suds, or chamber slops, which last is quite as good. The increased flow of the sap, induced by a liberal feeding of the roots, will do its own bursting of the "hide-bound" bark, which is simply its enfeebled condition as a consequence of its poverty of root. No one thinks of turning out a bony, half-starved calf in the spring into the clover-field, with the skin on its sides all split through with a knife in order to add to its growth. But this last proposition is quite as sensible and philosophical as the other. Nature takes care of itself in these particulars. Sap in plants is what the blood is to animals. Its vigorous flow reaches every part of its composition, and gives to each its proper play and function. We can show frequent instances of a decrepid, shrivelled branch, by the throwing open and manuring of the roots, and a thorough pruning of the whole top, increasing from an inch to two inches in diameter in a single season; and without assistance it grew, bursting and throwing off its old contracted bark as freely as the growth of a vigorous asparagus shoot will develop itself during a warm shower in May. Such nostrums are only the invention of the head to the laziness of the hands.—*Anonymous.*

THE TRUE COURSE.

With energy for prompt and vigorous action, and capacity for sober thought and sound reflection, a man may enter upon business with some assurance of success. His home will exhibit the best picture of his true character. What he undertakes is well done. His fences are in order—there is an air of neatness and thrift about his dwelling and out-buildings; his grounds are laid out with reference to beauty as well as convenience—ornament and use have been consulted in planting out his fruit and shade trees, and the garden evinces that his wife and daughters have joined him in his cultivation. He does not waste the long winter evenings in idleness, nor does his family neglect this season of improvement. While his children are engaged in the rudiments of learning, he surveys the action of our National and State Legislatures! and studies thoroughly the policy by which both are guided. His family do not content themselves with the light reading of the day, but history, biography, morals and religion receive a due share of attention. They lay up in winter, from reading, conversation and reflection, a harvest of more value than the bounties of autumn. The mind thus stored, casts light upon any vocation. It cheers the house-wife in her round of duties and lightens the labors of the field.—*Address of Hon. T. Jenkins before the Oneida County Ag. Society.*

Remarks.—Mr. Jenkins is not only a good farmer, but a good, safe legislator, conferring honor upon the position he occupies as a member of Congress, by his mild but firm counsels, and by the uprightness of his acts and character. We should be glad to receive his whole address.

For the New England Farmer.

WORKING COWS.

Friend Brown:—I noticed in the October No. of the *N. E. Farmer*, a few editorial remarks in regard to field labors of the cow. Judging from the tone of these remarks, the cow ought not to be exempted from the "surveillance of the yoke."—Now, friend B——, thou hast a right to *thy* opinion, and I also have to *mine*—hence, for the present, we will agree to differ. So far as right and wrong is concerned in the matter, I will leave.—Of course the ox and the cow were created, and given to and for the use of man. The ox was intended for a beast of burden, and the cow for a different use. The former was made strong and muscular, calculated, of course, for the services to which he is subjected;—the latter, by her construction, is *un*fitted to wear the yoke, but is purposely *fitted* for the use to which she is *mostly* applied. I know that in some countries cows are made to bear the yoke, and labor in the fields from rising to setting sun,—and consequently are of two-fold profit to their owners. But it does not look reasonable to me to suppose that the milk drawn from cows worked in this manner can be pure and wholesome. As a matter of course, cows that are obliged to haul the plow and cart in the dusty fields in the sunny days of summer, must suffer excessively from the heat. Such being the case, the milk must receive more or less impurities, and consequently rendered unwholesome.

'Tis true, I am not in possession of facts that will clearly prove this to be the case—but such a *conclusion* looks to me rational. I hope I may receive light on the subject, either *pro or con* my opinion.

A. Todd.

Smithfield, R. I., 10th mo., 1852.

Remarks.—Friend Todd takes the extremes.—We would not advocate working the cow "from the rising to the setting sun;" we would not do that with our oxen or horses.

There are a large number of farms in New England where most of the team labor of the year may be performed with a good horse; a few days' plowing and hauling of manure or stones being all the ox work needed. Now, in such cases, if the farmer would train a couple of strong and active cows to the yoke, so that he could supply this deficiency from his own stall, he would find a saving in cash, a still greater one in convenience, and do no injury to the animals, provided he used them considerately,—a few hours at a time, and always when the animal was in a proper condition to work, with the udder empty and in good flesh and strength. Mares are used as freely as horses, and even during gestation it is thought better to work the animal moderately through the whole time. We should recommend the working cow, however, only as a matter of convenience, in such cases as mentioned above, and not as a general practice.

SCIENCE AND AGRICULTURE.

Look at that wide valley, with its snow-clad summits at a distance on either hand, and its glassy river flowing cribbed and confined, in the lowest bottom. Smiling fields and well-trimmed hedgerows, and sheltering plantations and comfortable dwellings, and a busy population, and abundant cattle, cover its undulating slopes. For miles industrious plenty spreads over a country which the river formerly usurped, and the lake covered, and the rush tufted over, and bog and mossy heath and perennial fogs and drizzling rains rendered inhospitable and chill. But mechanics have chained the river, and drained the lakes, and bogs, and clayey bottoms; and thus giving scope to the application of all the varied practical rules to which science has led, the natural climate has been subdued, disease extirpated, and rich and fertile and happy homes scattered over the ancient waste.

Turn to another country, and a river flows deeply through an arid and desolate plain. Mechanics lift its waters from their depths, and from a thousand artificial channels directs them over the parched surface. It is as if an enchanter's wand had been stretched over it—the green herbage and the waving corn, accompanied by all the industries of rural life, spring up as they advance. Another country, and a green oasis presents itself, busy with life, in the midst of a desert and sandy plain. Do natural springs here gush up, as in the ancient oasis of the Libian wilderness? It is another of the triumphs of human industry, guided by human thought. Geology, and her sister sciences, are here the pioneers of rural life and fixed habitations. The seat of hidden waters at vast depths was dis-

covered by her. Under her directions mechanics have bored to their sources, and their gushing abundance now spreads fertility around. Such are the more sensible and larger triumphs of progressing rural economy—such as man may well boast of—not only in themselves, but in their consequences; and they may take their place with the gigantic vessels of war, as magnificent results of intellectual effort.

VEGETATION OF THE FROZEN REGIONS.

The following extract is from Seaman's "Botany of the Voyage of H. M. ship Herald, under the command of Captain Kellet," in search of Sir John Franklin. The accounts of the remarkable phenomena exhibited in those icy regions will be found new and exceedingly interesting:

"The soil is always frozen, and merely thaws during the summer, a few feet below the surface. But the thawing is by no means uniform. In peat it extends not more than two feet, while in other formations, especially in sand or gravel, the ground is free form frost to the depth of nearly a fathom, showing that sand is a better conductor of heat peat or clay, and corroborating the observation of the accurate J. D. Hooker, who, after a series of experiments in India, arrived at the same conclusion. The roots of the plants, even those of the shrubs and trees, do not penetrate into the frozen subsoil. On reaching it, they recoil as if they touched upon a rock, through which no passage could be forced.

"It may be surprising to behold a vegetation flourishing under such circumstances, existing independent, it would seem, of terrestrial heat. But surprise is changed into amazement on visiting Kotsbue Sound, where on the tops of icebergs, herbs and shrubs are thriving with a luxuriance only equalled in more favored climes. There, from Elephant to Eschholtz Point, is a series of cliffs from seventy to ninety feet high, which present some striking illustrations of the manner in which Arctic plants grow. Three distinct layers compose these cliffs. The lower, as far as it can be seen above the ground, is ice, and from twenty to fifty feet high. The central is clay, varying in thickness from two to twenty feet, and intermingled with remains of fossil elephants, horses, deer, musk-oxen. The clay is covered by peat, the third layer bearing vegetation, to which it owes its existence. Every year, during July, August and September, masses of ice melt, by which the uppermost layers are deprived of support and tumble down. A complete chaos is thus created; ice, plants, bones, peat and clay, are mixed in the most disorderly manner. It is hardly possible to imagine a more grotesque aspect. Here are seen pieces still covered with lichens and mosses, there a shoal of earth, with bushes of willows; at one place a lump of clay with senecious and polygonums, of another the remnants of the mammoth, the tufts of hair peculiar to burial places, and evidently decomposed animal matter. The foot frequently tumbles over ostealogical remains, some elephants' tusks measuring as much as twelve feet in length, weighing more than two hundred and forty pounds. Nor is the formation confined to Escholtz Bay. It is observed in various parts of Kotzbue Sound, on the River Buckland, and in other localities, making it probable that a great portion of North-western America is underneath a solid mass of ice. With such facts before us, we acknowledge that terrestrial heat exercises but a limited and indirect influence upon vegetable life, and that to the solar rays we are mainly indebted for the existence of those forms which clothe with verdure the surface of our planet.

"A curious fact is stated respecting the condition of the vegetable world during the long day of the Arctic summer. Although the sun never sets, while it lasts, plants make no mistake about the time, when if it be not night, it ought to be; but regularly as the evening hours approach, and when a midnight sun is several degrees above the horizon, droop their leaves, and sleep even as they do at sunset in more favored climes.

"'If man,' observes Mr. Seamen, 'should ever reach the pole, and be undecided which way to turn when his compass becomes sluggish, his timepiece out of order, the plants which he may happen to meet, will show him the way; their sleeping leaves tell him that midnight is at hand, and at that time the sun is standing in the north.'"

—*Fitchburg Reveille.*

For the New England Farmer.

"WHERE DOES WOOD COME FROM."

Mr. Editor:—I perfectly agree with you, in some remarks made a short time since, with regard to the system of editors in general not giving proper credit to such selections as they may deem of sufficient importance to be transferred into their respective columns. To say nothing of the manifest injustice in such a case, which is a matter pertaining more particularly to the editorial province, it deprives the reader of a very valuable index by which, alone, he is to determine to whom he is indebted for information received, or against whom he is to make a sally in case he should chance to differ in any respect.

An instance of this system of misrule occurs in the *New England Farmer* of June 1st. (Pardon me, but in justice I would say, that such instances are exceedingly rare.) (*a*). A very valuable article upon the growth of trees—the principles of which are mainly contrary to my experience—appears, credited to—"*Exchange.*" Hence, instead of presenting my objections directly to the author, who would be most likely to satisfactorily define his position, I am under the necessity, if desirous of any explanation at all, to take the circuitous route of presenting them to some miscellaneous print with the hope that they may *chance* to meet the eye of the one for whom they were intended.

But without further remark on *this* head, I will proceed immediately to make my objections, and "trust luck." The writer after detailing at some length with regard to various experiments, finally comes to these conclusions—"Where then does wood come from? We are left with only these two alternatives, the water with which it was refreshed, or the atmosphere in which it lived. Now it can be clearly shown that it was not due to the water; we are consequently unable to resist the perplexing and wonderful conclusion, that it was derived from the air."

I will simply ask, by what system of experiment can it be so "clearly shown" that *water* does not *also* materially aid in the production of wood? No one denies but that other elements than those de-

rived from the air contribute most essentially to *animal* life, and consequently growth; and yet actual experience teaches us that the same law which governs the animal kingdom in this respect, likewise applies to the vegetable. But, as I have upon another occasion expressed my views at some length in this connection, I will argue the case no further here. I venture to say, however, that I am able, at any time, and as conclusively as may be, to show that wood is *equally* at *least* the product of water as of air. R. H. Howard.

Burlington, Vt., Nov. 24, 1852.

Remarks.—(*a*) Our corresponent is mistaken in supposing that we were wrong in crediting the article which we copied a few weeks ago in relation to the "growth of trees," to "*Exchange.*" It had lost its paternity, and we were obliged to credit it to an exchange, or be chargeable with plagiarism ourselves.

Your proposition is accepted.

THE POTATO DISEASE.

The *Evening Post* publishes some notes on this subject, the result of the investigations of Mr. Molloy, of Rochester Avenue, a magistrate of the County of Dublin. It says:—According to Mr. Molloy's explanation, there are two species or distinct types of the potato rot—one produced by atmospheric influence, and the other caused by *aphis* or insects. In the case of that species of rot now under consideration, there is a small insect of the locust species, about the size and color of a flea, and fully as rapid in its movements, and active in its habits of concealment. This insect feeds upon the under side of the leaf, and in the dusk of the evening they can be seen in thousands committing their depredations, but if the slightest touch be given to the plant they instantly disappear. Whether they perforate the leaf has not been fully ascertained, but Mr. Molloy has satisfied himself that the spot they bite, when exposed to the sun, the upper or smooth surface of the leaf becomes marked with a brown circle, which spreads day by day, until the entire foliage becomes of the same color, and destitute of every principle of vegetable life.—But it is not alone in the *utter ruin* of the leaves that the ravages of this minute locust are most destructive. Mr. Molloy has traced its operation further. He has discovered that the insect deposits eggs which, after a few hours—perhaps a day or two—exposure to the atmosphere, produce larvæ, so minute as to be almost imperceptible to the naked eye, and these little creatures are so rapid in their movements, and so subtle in penetrating the earth, that they are scarcely perceived ere they disappear, so quick is the transition.—This larvæ—a millipede—grows to the length of about a sixteenth of an inch, and from the hour it is disengaged from the shell to the period at which it assumes the form and habits of the locust, it feeds upon the tuber, burrowing beneath the surface, and leaving a poisonous deposit there, which diffuses its pernicious agency throughout the entire tuber, producing a dusky hardness, in the first instance, and rottenness and fetid pulp afterwards; so that this insect, whether in the larvæ or the locust state, is equally destructive to the potato—in the latter it poisons and destroys the leaves, and in the former it poisons and destroys the tuber. Mr. Molloy has been at considerable pains in his inquiries as to the origin of the potato disease, and it was not until lately that he discovered the existence of this locust, which, in size, form, structure, habits, subtilty of movement, and evasion of detection, appears beyond all doubt—at least to us—to be a new creation in this country of the insect tribe. We never before saw anything like it, either in the larvæ or the insect state. From his investigation of their operations and effects, he is perfectly satisfied that they are the origin of that terrible calamity under which this country has so deeply suffered.—*Dublin Express.*

PRESERVATION OF DAHLIAS.

The complaint is common that dahlias lose their vitality during winter by dying or decay. The truth is that many are overstocked with caution, and "kill their bulbs by kindness." A person who has sense enough to harvest a potato, and preserve it during winter, need meet with no disappointment by the failure of dahlias. To ensure success, it is only necessary for the bulbs to be properly ripened, and packed away in a dry, cool place. The following will be found a good treatment:

As soon as the frost has blackened the tops, draw the soil about the stocks to the depth of three or four inches to prevent the freezing of the tubers by any sudden change of weather. When it becomes unsafe for them to remain longer in the ground, say the last of October or first of November, select a pleasant day, cut the stocks an inch above the surface, and with a spade carefully raise the whole cluster of bulbs from their bed. They are very tender when green, and care must be exercised not to separate them from the crown. When the soil becomes dry remove it, and pack the roots on a shelf in the cellar; simply covering them with a little dry sawdust or sand. The bulbs ought not to be divided from the foot-stock until the eyes report themselves in spring.—*Exeter News-Letter.*

ASHES.

Ashes, according to the most accurate analysis, contain a valuable proportion of sulphates, silicates, phosphates and carbonates of lime, with phosphates of potash, soda, lime and magnesia, together with certain other substances in smaller yet important quantities. An accurate and critical examination of them also reveals the presence of a considerable quantity of imperfectly constituted carbonaceous matter, (charcoal.) In ashes, therefore, the scientific reader will at once discover that we have all, or nearly all the materials of which some plants, and especially wheat, are composed. "It will seem," remarks a distinguished writer on Agriculture, "that ashes, mixed with the soil, will supply the quarter part of the substance of wheat." We are acquainted with several intelligent agriculturists who refuse to dispose of their house ashes on any terms. Formerly they were in the habit of selling them at a merely nominal price—about one shilling per bushel, and were glad to get rid of them at that rate, but now they are willing to purchase at twice that price. As a stimulent for Indian corn, we consider ashes, of good quality, worth fifty cents per bushel. As an ingredient in the

compost heap they are of inestimable value, and also as a dressing for turnips, cabbages, beans, &c. Even leached ashes are now bought up by farmers, and applied as a top-dressing to lands in grain and grass. They are also used with success as an ingredient in compost, and for giving increased energy to fruit trees. There is scarcely a single modification of vegetable life which is not essentially and powerfully benefited by their application.—*Norway Advertiser.*

For the New England Farmer.

THE RED RUSSET.

Mr. Editor:—A friend has called my attention to a communication in your valuable paper of the 2d inst., making some inquiry in regard to the Red Russet apple. With your permission, I give such information as I have.

The original tree is now standing in this town, on the farm of my father, Aaron Sanborn, and I had the pleasure, a few days since, to assist in gathering its fruit. The circumstances of the origin of this new fruit are these. Ten or twelve years since, my father grafted the branches of a large tree of natural fruit with grafts of the Baldwin. This tree stood near a large Roxbury Russet tree, and some of its branches extended into the top of the latter. When the grafted tree began to bear, it was noticed that those branches most remote from the Russet tree bore Baldwins, (like the scions) and those nearest a different fruit, which resembled in its outward appearance a compound of the Baldwin and Russet. The fruit of this new kind was put by itself, and its characteristics noted. In two or three years its remarkable and valuable properties were clearly perceived. It had its own clearly defined and strongly marked peculiarities. I should add, that a part only of the branches of the grafted tree, which were nearest the Russet tree, bore the new fruit; side by side with the grafts bearing the Red Russet, were others bearing Baldwins. One graft, however, then, and since, has borne only one kind of fruit.

I consider the Red Russet a compound of the Baldwin and common, or Roxbury Russet, containing the best qualities of these two kinds, modified somewhat by the native stock in which the grafts were set. Of the cause of this combination of different kinds of apples, to form a new kind, I am not well enough acquainted with vegetable physiology to speak. Of the fact itself, however unusual, there is no doubt.

Your correspondent inquires if the Red Russet is a *permanent* fruit. On this point, I can say, that my father has now in bearing condition, a dozen trees of different ages and kinds, which he grafted with grafts from the original branches. From these trees, we have gathered this fall fifteen or twenty barrels. In all cases the fruit is a true type of the original. We have tested, in every respect, the fruit from these trees, (in years past) and find it like the original.

Others, among them, Mr. Editor, your lamented predecessor in the *Farmer*, Mr. Cole, have had grafts from the original tree. In all cases, the fruit has been like the graft. Of the *permanency* of this new fruit there can be no doubt.

I consider the Red Russet the best winter apple raised in this country, and think that when generally known, it will take the place of the Baldwin and common Russet, both for our domestic market, and for exportation. It keeps longer and better than any apple I have ever known. I think with us, it will keep and retain its good qualities nearly two months longer than the Roxbury Russet. We keep them in our own cellar until July and August, and they remain apparently as firm, juicy and rich as ever. The Red Russet tree is also a great bearer, as much so as the Baldwin, which indeed, in this particular, it closely resembles.

I see by my paper that I am spinning a long yarn. I do not know whether I have given your correspondent (having mislaid his communication) information on the point which he desires, but hope so. After all, however, what I have written is about as much like the reality, as the "smell of the mug" was like the Dutchman's "goot" cider.

Respectfully yours,

Chas. H. Sanborn.

Hampton Falls, N. H., Oct. 20, 1852.

HUMAN LIFE.

According to the statistics on the subject, human life has been prolonged materially since the advent of science and civilization, and the average duration of life is now steadily on the increase. In the city of Geneva, in the 16th century, 1 in 25 died annually; in the 18th century, 1 in 34; and at the present time 1 in 45 is the average mortality. In the British Navy, among adults, the mortality is only 1 in 100, or thereabouts. In the American Army, with superior medical facilities, the mortality is said to be only about 1 in 300. In London, during the last century, the mortality was 1 in 32; in 1838, 1 in 36. Within the last 20 years the mortality in Russia has been 1 in 27; Prussia, 1 in 36; France 1 in 39.07; Holland, 1 in 39; Belgium, 1 in 43.91; England, 1 in 23.07; Sicily, 1 in 82; Greece, 1 in 30; Philadelphia, 1 in 42.03; Boston, 1 in 45; New York, 1 in 37.02. The great rush of immigration to New York has made the mortality of that city the greatest—otherwise the health is equal to any American city.

These statistics might be given more abundantly, but with the same tendency. Enough has been presented to show that science, knowledge, cleanliness, and virtue, conduce to the prolongation of human life. A great deal is doubtless owing to the increase and diffusion of medical science, which has changed habits of living, attracted attention to ventilation, and examined into the causes which preserve health or produce illness. These statistics certainly establish a pleasing fact.

Aiming at Eminence.—Do not trouble yourself about "rising to eminence." If, *in consequence* of your writings or your deeds, you should become eminent, very well; but to do anything *for the sake* of "rising to eminence," is unworthy of a man. Very comfortable and very noble lives are led in obscurity. Moreover, true eminence is not attainable by any man who places it before him as his chief object, because that indicates an inherent weakness of character.—*Home Journal.*

☞ Drinking water neither makes a man sick, nor in debt, nor his wife a widow.

SINGULAR FACT—LARGE TREES.

There is now standing on the premises of John and Mahlon Carver, in Bayberry township, Pennsylvania, an elm tree that measures twenty-five feet in circumference one foot from the ground, and the trunk retains its size with but little diminution for over thirty feet, where the limbs branch out. A curious incident is connected with the history of this tree, in the fact that the farm on which it stands was taken up by patent from William Penn by John Carver, who came over with him from England, and that the premises have regularly descended from father to son by will, and always to "John Carver," of which the seventh of the name is residing thereon at the present time. It is very doubtful whether there is any other property in the county which has never been sold. There are also growing on the premises two pear trees which came from England with the original John Carver, one of which has a plentiful crop of pears at the present time.

There is also standing on the premises of Alfred Worthington, in the same township, a chestnut tree that measures, one foot from the ground, 28 feet in circumference, and 6 feet from the ground 25 feet 8 inches. This tree retains its full vigor, and is probably the largest tree in the country.—*Germantown Telegraph.*

For the New England Farmer.

NOTES OF THE SEASON.

Friend Brown:—In the early part of the present month I made a short visit in the town of Sandwich, N. H. This is an excellent grazing town, its steep hill-sides producing an abundance of fine feed, and large numbers of cattle and sheep are fattened and sold there every year. This year, however, the drought cut off the feed early in summer; so beef is now a scarce article. Hay is dear and stock is very cheap. Here in Rhode Island, we have a good supply of fall feed, but *there* the fields and pastures are almost destitute of verdure. On rich, moist land, grass appeared to be alive; but I saw acres together on which the roots appeared to be dead. Many persons there think the hay crop will be lighter next year than it is this.

The yield of potatoes is good, and scarcely any rotten ones are found. Corn is sound, but injured by the drought. Wheat yielded better than usual. Apples are abundant in all sections of the country, though I think they are not quite as large as usual. One man said he thought the skin was thicker than usual, and he had an idea that apples will keep this winter better than common. Time will tell. Old orchards seem to have remembered their former fruitfulness, and the way the trees are loaded this year seems to ask the indulgent farmer to spare them a little longer. The plow, the hoe, and manure, will work wonders for the old trees.

Such is a brief account of the agricultural prospects of that section of the country, and here I might stop:

> "But see the fading many-colored woods,
> Shade deepening over shade;"

and I can hardly lay aside my pen without saying a few words about *them*. All who have ever seen our New England forests in autumn, especially those in mountainous districts, must admire their beauty. I have often looked upon them with delight, and *felt* there is beauty, *even in death;* and now, as I approached the mountains in Carroll county, the view appeared, if possible, more pleasing than ever. The umbrageous sugar maple, whose thick foliage afforded such a cool retreat from the scorching rays of the summer sun, had exchanged its green dress for one of orange and gold, tinged with crimson. Other deciduous trees had also lost their summer hue, so that every variety of tint was visible. These contrasted with the dark green of the graceful spruce, pine and hemlock, which crown the mountains and surround the crystal lakes and ponds, present a scene equalled in beauty only by the gorgeousness of a New England autumnal sunset.

But Time tarries not. The eye cannot always rest upon the beautiful, and terrestrial pleasures are, at best, but transitory; so after three days,

> I left behind my native hills,
> With all their varied hues,—
> The crystal streams, the dancing rills,
> And the beauteous mountain views.

I soon lost sight of the mountains, and of the delightful scenery around them; but the picture is deeply engraved on the mind, and in reviewing it the finger of a Divinity is visible in every hue, and wilfully blind is he who cannot see it.

L. Varney.

Providence, 10 *Mo.* 25*th*, 1852.

N. H. STATE AGRICULTURAL SOCIETY.

The New Hampshire State Fair was held at Meredith, on Wednesday and Thursday, Oct. 6 and 7.

From our correspondent's account, the Show was a very creditable one, and the attendance very large. It rained, he says, "by fits and starts," all day on Wednesday, but nevertheless, 1500 dollar badges were sold, and quite a number of single tickets. The grounds were very favorable for the exhibition, and great pains were taken by the inhabitants of Meredith Bridge to accommodate the visitors. The useful articles greatly outnumbered the fancy and tasteful ones, as it was becoming they should, though in the ornamental department the Fair is said to have been very good. Our correspondent particularizes some carriages, which would have done no discredit to a Boston Fair. The stock of cattle was regarded as uncommonly fine. There were many pairs of fine working oxen and a large number of superior milch cows of improved breeds and others, and a goodly number of very superior sheep. There were numbers of superior horses, Blackhawks and Morgans, &c. Some aldermanic swine, and quite a fair exhibition of fowls. And what, perhaps, is yet better worth noting, the show of fruits, such as apples, pears, peaches, grapes and plums, as well as of vegetables, was very large and fine. Take it all in all, it is pronounced by one who visited the Vermont Fair at Rutland—and who himself is a good judge of such matters—to have been superior to that in every thing but horses and sheep.

On the evening of Wednesday, there was a spirited meeting of the farmers held in one of the meeting-houses of the village, at which remarks were made by Mr. Nesmith, the President of the Society; Messrs. Glidden, of Unity; Eastman, of Conway; Sawyer, of Piermont; J. M. Whiton, of Boston; Ex-Gov. Steele of Peterboro'; and Dr. Woodbury, of Bradford.

On Thursday a public address was delivered by W. S. King, Esq., of Rhode Island; in which the popular prejudices against "book farming" were very successfully combatted.

At the close of this address, Gen. Pierce was introduced, and made a brief but very felicitous speech to the farmers, closing with the hope that "the smile of the Great Spirit" [the Indian name for the beautiful lake on the borders of which this meeting was held] might never rest on a population less contented or less prosperous than that which was now before him. The speech was received with much applause.

For the New England Farmer.

GOV. ENDICOTT AN HORTICULTURIST.

BY S. P. FOWLER.

[*Continued from page* 449.]

Mr. Higginson, in 1629, wrote a pamphlet entitled "New England's Plantation. Or a Short and True Description of the Commodities, and Discommodities of that Country." In describing the natural productions of the soil, around Nahumkeag, he says, "Excellent vines are here, up and down in the woods. Our Governor hath already planted a vineyard, with great hope of increase." Tradition says, that Gov. Endicott entered largely into the cultivation of the native grape, for the purpose of making wine, but with what success, we are unable to say. These vines were planted at his orchard farm, and extended from his mansion house, in two lines, to the banks of the river. It is a singular fact, that the early discoverers and settlers of this country entertained sanguine hopes of being able successfully to cultivate our native grapes, and furnish wine for exportation. We find in the records of the Massachusetts Company, a memorandum of articles to be sent over from England, for the use of the Plantation at Nahumkeag. Amongst these were "Ministers, Men skilful in making of pitch, and of salt, and *Vine*-Planters." In the London Company's first general letter of instructions to Endicott, and his council, under date of 17th of April, 1629, we find the following. "We take notice that you desire to have Frenchmen sent you, that you might be experienced in making of salt, and *planting of vines*. We have inquired diligently for such, but cannot meet with any of that nation. Nevertheless, God has not left us altogether unprovided of a man, able to undertake that worke; for that we have entertained Mr. Thomas Graves, a man commended to us, as well for his honesty, as skill in many things very useful." In a letter, sent home from "New-England, by Master Graves Engineer, now the resident," we find in a glowing account of the fruitfulness of the country the following:—

"Vines do grow here plentifully, laden with the biggest grapes that I ever saw; some I have seen four inches about. So that I am bold to say of this country, as it is commonly said in Germany, of Hungaria, that for cattle, corn, and *wine* it excelleth." These grapes were exceedingly large, nearly the size of the imperial gage plum. Our largest native grapes are about three inches in circumference.

Rev. Mr. Hubbard, in his History of New England, written about the year 1680, when describing the fertility of the soil, and its vegetable productions, says, "That great hopes of fruitfull vineyards was entertained in after time; but as yet either skill is wanting, to cultivate and order the roots of those wild vines, and reduce them to a pleasant sweetnesse, or time is not yet to bee spared, to looke after the culture of such fruits, as rather tend to the *bene* or *melius esse*, of a place, then to the bare *esse* and substance thereof." Alas, the climate of New-England forbids these fond anticipations of the Puritans from ever being realized by us. The subject in regard to the propriety of cultivating the Tobacco, early engaged the attention of the planters at Nahumkeag, as well as the Company in England. In their first and second general letters of instruction to Endicott and his council, they say, "The planting of tobacco is by this whole company generally disavowed, and utterly disclaimed, by some of the greatest adventurers amongst us, who absolutely declared themselves unwilling to have any hand in this plantation, if we cherish or permit the planting thereof. And we especially desire that no tobacco be planted, by any of the new planters, under your government, unless it be some small quantity for mere necessity, and for physic, and for the preservation of their healths; and that the same be *taken privately by ancient men*, and none other." In this manner, and with very great caution, was tobacco first introduced into Massachusetts.

There was likewise a law in New-England, in the year 1634, "That no person should be permitted publicly to use tobacco, on fine of 2s. 6d., or privately in his own dwelling, or dwelling of another, before strangers; and they also forbid two or more, to use it, in any place together." In Winslow's Relation, we find that the Indians were accustomed to take much tobacco; but for their boys so to do, they account it odious. The idea that tobacco, like rum, should be used only by persons of suitable age, and taken moderately, was not confined to the Puritans. We well remember when a lad, being present when rum was used, or tobacco taken, being told that we were not old enough to use it, and must wait until we became men.—And it was not uncommon in those days, for very polite men, who chewed tobacco, to turn their backs, or put one hand to their mouths, to conceal the act of taking a quid. But we have noticed, that such modest and polite men, at the present day, are exceedingly rare, indeed we do not recollect to have seen one for many years. They must, we think, much to our regret, have all passed away. The quiet, sober, and secret way, tobacco was taken by the Pilgrims, is in strange contrast with its use, at the present day. Many amusing anecdotes are connected with its early use and history.

The Rev. Mr. Erskine, the author of the Gospel Sonnets, wrote a religious doggerel, wherein he supposed the smoking of tobacco a proper subject for religious meditation. It was addressed to smokers, and called upon them to spiritualize smoking. It was written in 1770. The first stanzas are as follows:—

The Indian weed, now withered quite,
Though green at noon, cut down at night,
Shows thy decay;
All flesh is hay,
Thus think, and smoke tobacco.

Doth juice medicinal proceed,
From such a naughty foreign weed;
Then what's the power
Of Jessie's flower,
Thus think and smoke tobacco.

The superior benefits, Capt. John Underhill supposed himself to have derived from what he is pleased to call "The good creature tobacco," is amusing—Mistress Wilbore was dealt with, for coming to a lecture in Boston, where Master Shepherd expounded, and wearing a pair of gloves slit at the thumbs and fingers, for the purpose of taking snuff, as was supposed. Master Cotton observed, for what purpose, should those vain openings be, but for the intent of taking snuff! And he began to quote Gregory Naziazen upon good works.

The culture of tobacco by the planters early engaged their attention, and notwithstanding its prohibition by the London Company, many were anxious to cultivate it, at Nahumkeag. Gov. Endicott and some of his company opposed its cultivation, on the ground of its being highly injurious to the health and morals of the planters. This decision is the more remarkable, when we consider the great and marvelous properties it was supposed at that time to possess. Josselyn, in his "Account of Two Voyages to New-England," when speaking of the tobacco, says, "Its virtues are these, it helps digestion, the Gout, the Tooth-Ach, prevents infection by scents, it heats the cold, and cools them that sweats, *feedeth the hungrey*, spent spirits restoreth, purgeth the stomach, killeth nits and lice, healeth green wounds, the Syrup is good for many diseases, the Smoak for Phthisic, and all diseases of a cold and moist cause, good for all bodies cold and moist, taken upon an emtie stomach." Considerable attention has been paid to the cultivation of tobacco, of late years, in Massachusetts. The variety produced is called the Connecticut seedleaf. The quantity raised on the acre is larger than it is in the tobacco growing States, and it usually brings double the price of that grown in Virginia or Kentucky. The yield is from fifteen hundred to two thousand pounds per acre, at an average price of eight cents per pound. The crop, it is said, does not injure the soil, and it is found that wheat and other grain and grass flourish better, where tobacco forms a part of the rotation, than where it does not.—An instance is mentioned, where thirty-six dollars' worth of manure was put upon an acre and one hundred rods of land, which was planted with tobacco. This raised a ton of tobacco, worth one hundred and sixty dollars. The land was then sowed to wheat, and reaped thirty bushels.

The next crop was hay, which gave at two cuttings four tons. The reader must, we think, have perceived of late, that our hold upon Gov. Endicott as an Horticulturist has been rather slight. And we are hereby admonished to close this communication, before we are again tempted to wander back to those interesting scenes and events that are recorded on the early pages of our country's history. In taking leave of Gov. Endicott, as a cultivator of the soil, we will quote the language of Dr. Bently, who says, "Posterity has fully approved the choice of Governor Endicott, and more circumstances distinguish the grounds on which he planted, than are recollected respecting any of the leaders of the Pilgrims." The death of this worthy and energetic man was tranquil and easy, and took place at Boston, on the 15th of March, 1665, he being seventy-seven years of age. Tradition says, he was buried in the King's Chapel Burying-Ground. But the precise spot is not now known. His tomb stone was standing at the commencement of the Revolutionary war, when it was destroyed, with many others, by the British soldiers, when they occupied Boston.

Danversport, Sept., 1852. S. P. F.

CONCORD FARMER'S CLUB.

SUBJECT—*Rearing, Feeding and Fatting Swine.*

Mr. WM. D. BROWN said, that when we consider that the richer the food the stronger will be the waste matter, it will be seen from what the hog eats that his manure must be a powerful stimulant. So it is. It gives us the deep green corn in June. It is particularly well suited to dig in about fruit trees, being so fine. But notwithstanding the valuable qualities of this concentrated manure, it is more generally wasted than any other. The yard is usually open to the blazing sun, the drenching rains and free winds of heaven. It is true that nothing can ever be wholly lost, but these wasting agencies transfer very rapidly the strength of the exposed deposit, to the absorbing atmosphere. It is said of Bonaparte, that he invariably selected men for offices requiring great skill and wisdom, who had large noses! Happy and wise is he whose nose is large enough, and sensitive enough, to guide him in making such arrangement as will save his own wealth, and permit his neighbor to breathe air not corrupted. I believe the hog to be an in-door animal; entitled to agreeable food, and the whole of his tail! Treat him liberally, and whenever you need, he will, with a little justifiable complaint, yield up his life to you with a handsome profit.

Mr. J. P. BROWN said that some years ago he made an estimate of the cost of keeping a certain number of hogs. The result was, that year, he had *ninety dollars and the manure more than the cost of keeping*. In using $125 worth of feed on *four* hogs he had received a profit of *fifty-eight dollars and seventy-five cents*. He gave the items to show this profit. He thought it profitable for most families to keep one or more hogs. Many other excellent remarks were made which we had not opportunity to report.

The opinion greatly prevailed with those present, and many farmers of experience were present, that it is profitable for farmers to rear and fat swine for the market even in Middlesex county.

Subject for discussion next week—Is the raising of poultry profitable? Leaders in the discussion, C. A. Hubbard, J. P. Brown, J. B. Farmer, C. W. Goodnow. Place of meeting, Jacob B. FARMERS.

AMERICAN POMOLOGICAL SOCIETY.—A copy of the Transactions of the Second Session of the American Pomological Society, held in Philadelphia, on the 13th and 14th of September, 1852, has been presented us by the Hon. MARSHALL P. WILDER, President of the Society. The biennial deliberations of the most skilful fruit culturists in the

country must have an important influence in regulating the nomenclature of fruits, and in deciding on their various merits. The work contains many valuable pages from which we may hereafter draw for our columns. The next meeting of the Society is to be holden at Boston in 1854.

HAMPSHIRE AGRICULTURAL SOCIETY.

We compile from the *Amherst Express* the following account of the annual Exhibition of this Society, on Wednesday, October 27.

Wednesday opened most auspiciously, the atmosphere was cool and bracing, and the weather delightful as could be expected in these drear autumnal days, when the heats of summer are cooling down before the frosts of approaching winter. The Cattle Show of the Hampshire Agricultural Society, taken as a whole, surpassed anything heretofore exhibited in this town. Although some departments may have been less full than on previous occasions, yet in others the display was of a quality more than sufficient to make up any deficiency. The Show of Cattle, although not as large as it has heretofore been, was still far above that of any other Society, in the State, we have yet noticed. Eastern Hampshire always turns out, in full, in this sterling element of Cattle Show, and this year she still maintains her superiority, notwithstanding the circumstances which have combined to greatly reduce the number of cattle on our farms.

Stock on the Common.—The whole number of neat Cattle on the ground was 400. There were four strings of Working Oxen, many of them fine animals, yet they would have shown to better advantage if some of the smaller yokes had been minus. Leverett turned out 68 pair, drawing a car containing a band of music. Hadley and Granby were each represented by 35 yokes, the latter drawing a car upon which was an American flag, dressed in mourning, in honor of Mr. Webster. From Pelham there were 10 yokes present.

Fat Cattle were not numerous, but those presented were of superior quality. Of Bulls, Cows, Calves, Sheep, Swine, &c., there was a good display, pork, in particular, being well represented, the grunters and squealers attracting their full share of attention.

Horses.—Many fine animals were exhibited, although the entries were less numerous than on former occasions.

Plowing Match.—There were sixteen competitors, and the nicety of the work, depth of furrow, and rapidity of execution, together with the different instruments used, attracted the attention of a large concourse.

Sweetser's Hall.—Here was the finest display of fruit we remember ever to have seen. Although rather late in the season for many specimens of summer fruit, yet, in the article of apples, there was a splendid display. Four long tables, extending the length of the Hall, and one across the end, contained 658 plates of fruit, and few, if any, of our older cotemporaries can present a better display.

Phenix Hall.—Here were displayed vegetables, grains, mechanic arts, butter, cheese, bread, &c. The first point of attraction on entering the hall was the splendid array of butter. It seemed as if the ladies vied with each other in bringing in the largest and best specimens from their dairies.

Vegetables seem to have been growing this year on purpose to see which would get to be the biggest by Cattle Show time. The display of monstrous vegetables was much larger than usual. Although it may be gratifying to behold these monstrosities, yet they are not, as a general thing, of equal utility with smaller and more medium growths.

The Address from W. C. Goldthwait, A. M., Principal of Westfield Academy, was a capital thing, just suited to the occasion, plain, practical, comprehensive, within the understanding of all, and full of useful information.

Mr. Goldthwait commenced by alluding in a very felicitous manner to the wealth of farming, in which he gave statistics showing it to be far the most profitable of any employment. His subject was "Agriculture as susceptible of Improvement." This was obvious from the great improvement witnessed within the last fifty years, as can be seen in our larger crops, better stock, and improved lands. In other parts of the world there had been still greater advances. While Massachusetts supports a population of 87 to the square mile, England subsists over 200. He then enumerated the particular points in which our farming was capable of improvement. Draining was yet in its infancy among us. In manures we were far behind other countries. He illustrated these by allusions to what had been done in other parts of the world, where on single estates there were 700 miles of drains, and manures, reduced to a liquid state were showered, by means of machinery upon the fields. Another matter where improvement could be made was in the cultivation of less land, which could be better treated. In France, where the landed property is divided between each generation, the average size of farms was 15 acres, and there were 1,500,000 farms averaging only 5 acres, and yet this country had been greatly growing in wealth. The soil must be better prepared for the seed. Plowing is the most important operation on the farm. It is necessary that the ground should be properly pulverized, and in this connection he spoke of subsoil plowing; of the necessity of stirring the soil to a sufficient depth, for the roots of plants, so that the strength of the plant need not be exhausted in boring a passage for its roots through the plow floor. The roots of corn descend six feet; clover two; grain from two to three. Subsoil plowing has doubled crops without additional manure.

In some parts of Europe they have spade husbandry, which consists in throwing up the soil with a fork, having tines 14 inches long. In France 40,000 acres are cultivated in this way. In this connection he again alluded to draining, and spoke also of manures. He then went on to show how farmers could improve their agriculture by improving themselves. They ought each to have a workshop and know how to use it. They should be coopers enough to put a new hoop on the vinegar barrel, and dentists enough to insert a new tooth in the rake head. Learn how to do every thing. Chemistry is important to the farmer and he should not forget books. Cultivate the soil and the mind. He then enumerated some of the advantages of the farmers life, and closed with a beautiful tribute to the ladies, farmer's wives and daughters.

After the dinner Mr. Alfred Baker, President of the Society, then made a statement of the present condition of the Society. The funds had been increased since last year $700, and now amount to $3,200, and the number of members was 700; of which 250 had been added during the year, and of these 200 were ladies. Being desirous of raising the funds of the Society to the limit prescribed by the legislature, on which bounty would be paid, and having called pretty generally upon the gentlemen, an appeal was made to the ladies. They had responded with their characteristic generosity, and the names of some 200 ladies were now enrolled as life members of the Society, and more than the needed amount had been promptly raised.

Speeches were made at the table by Hon. Edward Dickinson, Hon. Amasa Walker, Secretary of the commonwealth, Dr. Reed of Pittsfield, and President Hitchcock, and altogether, we should judge the Hampshireites had a most agreeable and profitable meeting. May they have many more.

For the New England Farmer.

VALUE OF BIRDS.

Friend Brown:—I will relate to you an occurrence that took place in the year 1851, on my farm, that shows the value of birds, viz:—I went to mowing in one of my fields, and found that the grasshoppers were very plenty but not fully grown, and remarked to my son, who was mowing with me, that if they were not destroyed there would be enough to eat up all the fall feed. But as soon as we had mowed a few swarths, there were three blackbirds came and went to work, and before noon there were more than 50 blackbirds and bobolinks on the piece; the next day when we took away the hay the grasshoppers were few and far between. The following day we went to another field at some distance where the grasshoppers were the same, and the birds followed until their number increased to more than 200, and when we were done haying they had made a clean sweep, with the assistance of a few of the crow blackbirds that appeared to come a great distance; they were coming and going always in the same direction and very high in the air. I will just remark that when I was a boy my father said we might kill all those kinds of birds, because, as he said, they did mischief.

I once knew crow blackbirds to pull up corn, and but once.

Yours, &c., B. F. Cutter.

Pelham, N. H., Nov. 6, 1852.

A Seasonable Hint.—Suet and lard keep better in tin, than in earthen ware. We have vessels made with covers and handles, which will contain about fifteen pounds each, five of them for a dollar. With careful usage they will last an age. Lard kept in earthen pots, penetrates the pores so that the outer surface is soon covered, and in hot weather so much will pass through as sometimes to run off upon the shelves. Now is the time to get the tin cans; once tried you will never go back to the earthen pots, either as a matter of convenience or economy.

AGRICULTURAL IMPLEMENTS.

During the last half century, no subject has more engaged the attention of thinking, practical men, than the improvement of machinery. Under this general head may be properly classed all the implements of farm husbandry. In our country, more perhaps than in all the world beside, has this spirit of improvement, this constant striving for something better, wrought out results useful to man. Our government and institutions are well calculated for the development of individual genius and enterprise; and to this individual thinking and acting, may be referred the glorious results which have been attained.

Genius is not pent up by arbitrary rules, edicts or censorships, to break out here and there like an impetuous torrent, but finds vent in all directions, and thus every department of industry is benefited. It is seen in works of art, where great natural obstacles are to be overcome. Combined with wealth, it spans rivers whose perpendicular sides and deep abyss have mocked the daring and skill of former ages, or bids the mountain yield a passage through its rocky bosom. The old machinery, both of sea and land, stands back mute and motionless, in astonishment at the modern queer ways of grinding, reaping, threshing, pumping, pulling and wheeling, and all manner of locomotion.

Man's inventive genius never tires—the inventions of one only exciting the genius of another to supply a defect or add an improvement. It is this stimulus which has brought the steam-engine to its wonderful state of perfection, and produced similar results with other machinery—with our reapers, plows, harrows, and most of the implements of the farm.

The quality of any work, in whatever art, depends mainly on the tools with which it is wrought. The most skilful shoe-maker, with a superior piece of leather, cannot make a good boot, unless he have a good awl, good thread, and a good knife; and the ship-builder not only needs the right kind of timber, but the right kind of tools. It is so in every art. In farming, good land will avail but little with a plow that does its work in an imperfect manner, and the farmer would find that he was far behind his neighbors both in quality of work and time, if he was without a harrow, or if he should use the flail or horse's hoof, instead of the threshing machine, upon large quantities of grain.

If his plow turns the furrow, so as to preclude the atmospheric influences, or breaks it into disjointed masses, his crop is materially affected by it. The whole action of the plow depends upon a shaping so precise, that a very accustomed eye cannot ascertain without trial whether a plow is rightly turned or not. Again, the operation of the plow depends upon the kind of soil to be turned.

The heavy plows made for the strong and hard soils of New England, might prove of little use on the mellow vegetable mould, that constitutes the prairies of the West. In Massachusetts, many of the farms are so small that the sickle and flail may still be used; while in Illinois, Iowa, or Missouri, the use of either would be looked upon as strange, and excite as much wonder, as would Noah's ark, with its inhabitants, drifting into the harbor of Chicago, or working up stream, against the current of the Mississippi, into the port of St. Louis.

The plow is the implement of the most importance on the farm; and the improvements made in this article, within a few years, especially in the draft and in the adaptation for sub-soiling, must produce great and beneficial results in this State, which will show a new and more smiling face on our ancient mother, in the latter half of this century.

It is but a short time since the discovery was made that large portions of our best and most fertile lands were neglected and unproductive. Experiments were made on a small scale, to reclaim meadow lands, in the Irish fashion, with the hoe; then the common plow was introduced, but both proved inadequate to the labor. It was found that the cost of subduing in this manner was so great, that few proceeded in the attempt. But enough was accomplished to reveal the fertility of these lands, and to excite an inquiry how they could be reclaimed at a remunerating cost. Methods were soon devised not only to plow meadows that were hard, but those inaccessible to the team on account of their softness. The pulley, rackets, and meadow plow with double share, have added some millions in value to our New England soils. This plow cuts the entire surface of the furrow, from the subjacent soil, and enables the mould board, with the aid of the plowman's foot, entirely to reverse it. From the elasticity of the meadow sward, filled as it usually is with innumberable roots, no other implement has been found equal to the meadow plow, in the work of reclaiming our meadow lands.

For the New England Farmer.

SHANGHAI FOWLS ON THE RISE.

I see it stated in the *Woonsocket* (R. I.) *Patriot*, that E. G. Faxon, of this town, has lately disposed of a pair of Shanghai fowls, for the clever sum of *one hundred dollars*. Possessing a personal acquaintance with the Editor of the *Patriot*, from whose pen the statement seems to appear, I am not disposed to doubt the truth of the same. E. G. F. keeps some very *choice* fowls—and his Shanghais are certainly perfect specimens of what G. P. Burnham, of Boston, calls the most beautiful of all domestic birds. Some people *will* see beauties where others cannot.

Now, I would ask why it is, that these Shanghai fowls occasionally bring such enormous prices! And as I have *asked* the question, I will also take the liberty to *answer* it according to *my* opinion. It is because purchasers do not *know* them. A friend of mine called a few days ago on a fowl fancier, who had just disposed of five pairs of Shanghai fowls for $40,00; and when asked by my friend if he really considered them superior to our common fowls, he replied that he did not; and such would be the reply of hundreds of others, if asked the same question. I think our native breeds of fowls have been shamefully treated, (*a.*) and I hope the time is soon coming when they will be restored to their former standing—a place they so justly merit. A. T.

Smithfield, R. I., Nov. 10th, 1852.

Remarks.—(*a.*) So do we, friend "T.," and that is the reason they have lost caste. If they were treated as well as the foreigners which have been introduced, they would repay all kindness and leave a balance for profit.

For the New England Farmer.

EXHAUSTING THE LAND.

BY A. G. COMINGS.

There is a great deal of talking among some farmers as though something might be made out of nothing, in the laboratory of nature. They declaim against exhausting crops, and even exhausting manures, as though there was much trouble and little understanding in the matter of using and keeping the soil.

Every crop is an exhausting crop; but in one case the exhaustion may be perceptible, while in another it may not. If a farmer sows or plants for a particular crop where the soil contains a great abundance of the properties which must be taken up by a growing crop of that kind, he will be likely to get a very large crop. If so, the soil will be exhausted to the full amount of what the crop has taken from it. Yet the exhaustion will not be perceptible, because there still remains a sufficiency of those properties for producing other crops. But if the soil is almost entirely deprived of certain very necessary properties, by the growing of one crop of a particular kind, that crop, under such circumstances, would be condemned as an exhausting crop. So it must be in the whole course of agricultural practice.

If twenty persons were to sit down to dine at a table supplied with a great variety of what people generally eat, and yet those persons all live entirely on bread, the supply of bread would be very soon exhausted, and the company might starve. So it is with the feeding of plants. The soil of a particular locality may be found but moderately supplied with certain properties, and the very crop which would take those properties all away is required from the soil. Now the crop is not to be blamed. It must "eat to live," and it must eat what it needs, as men do who would live in health.

It is impossible for us to raise a crop, of any kind, without exhausting the soil. The greater the crop the more the soil must be exhausted. If we use anything to make the substance of the soil more active, the consequence must be the exhaustion of the soil; unless plants can grow out of nothing, as well as out of good soil.

A neighbor solicited a little advice concerning the use of certain lands. I advised him to apply

some quantity of lime. The answer was, "Lime exhausts my land."

Why did it exhaust the land? It was applied so as to make the soil very active, or, which is about the same, it hastened the vegetable matter of the soil to such a state as to be taken up by the growing plants.

Another man inquires concerning a piece of land, and I advise him to apply all the ashes he can save, because it is evident that the soil has not a proper supply of potash. But he tells me that he used ashes on a piece of ground some years ago, and believes that it exhausted the soil. The fact undoubtedly was, that he applied ashes in sufficient quantity to quicken the action of the soil, obtained a good crop, and the crop exhausted the soil. The ashes did no mischief.

"I don't like guano," says another, "for I find that it exhausts the soil." What is the matter now? Why, the man has used a little guano upon an almost ruined soil, just enough to stimulate it, and obtained an extra crop. But the next year the soil appears poorer than ever. So we hear the complaint about guano, that it exhausts the soil. The truth is, however, that there is no just cause of complaint in the case. Not enough guano had been used in the case to enrich the soil, nor even to sustain it, under the year's cropping, and as a larger crop was taken off by the addition of a very little, the soil was of course exhausted. In the use of guano I am quite of the opinion that it may be most profitably applied in the hill for our planting grounds, when unfermented manure is spread upon the land. There is, to me, no doubt at all of the great profit of such a use of guano. But a light manuring with guano, upon an almost worn-out soil, will bring the remaining properties of the soil into use, and a single crop may take them up. If so, that crop must exhaust the soil. This is the state of the case with much of the land that is said to have been injured by lime, ashes, and guano.

Every crop exhausts the soil, and the larger the crop the more the soil is exhausted. All kinds of crops are not alike as to power to exhaust the soil.

Some of the French agricultural chemists have maintained that a crop of clover would not exhaust the soil. There is little doubt that the clover plant is an excellent agricultural chemist, and will do much to supply what it takes away from the soil. But there are some mineral properties in clover which must be derived from the soil. When these properties are taken up in any quantities the soil is so far exhausted.

The great inquiry of some people for non-exhausting kinds of grain is about as sensible as an inquiry would be for a kind of animal which could live without eating.

The great matter to the farmer is to produce exhausting and yet profitable crops, and at the same time know how to keep up his land. The most exhausting crops are generally the most profitable for him to raise.

It would be of the greatest consequence to the farmers of New England to know in what properties our soils were generally most wanting, and then what of our common crops will most exhaust the soil of those properties. It is certain that a very large portion of the land of New England is now greatly destitute of vegetable and mineral strength for producing the most valuable crops so as to be profitable. Profitable farming must henceforth be that which tends to reclaim the soil, while year after year taking profitable crops from it. Year after year has disminished the power of the soil for producing profitable crops, while many millions of dollars lie buried in swamps, within New England, which one-quarter of the hardihood and perseverance necessary to success in gold-digging in California would bring into use. It is very poor policy for farmers to avoid every outlay for working up the "raw material" which they have on hand in the shape of swamp muck, &c. They have the material for reclaiming the worn soils of New England mostly upon their farms. Why not use them, and cease to inquire so much for non-exhausting crops? Every acre of land should be put in such a state that the cultivation of it must give a good profit to the cultivator. It is all idle to think that every dollar spent for lime, salt, plaster or guano, for use upon the land, is extravagance. And while the great body of farmers will laugh at a man who digs out muck, and complain that their farms are worn-out, it is no wonder that "the boys" seek some other way to make money, than working the worn lands which their ignorant fathers have been practicing robbery upon all their life time. If any of the farmers' boys want to dig a little gold, I would advise them to begin at the muck swamp nearest their dwelling. C.

Mason, N. H.

For the New England Farmer.

PAINT AND WHITEWASH.

The remarks of one of your correspondents in regard to white painted houses in the country, reminds me of our friend Bishop —— from the South, on a visit at our country seat some years since, after admiring the stately forest trees and complimenting us on the neat appearance of the grounds, sagely remarked, looking at some grave looking rocks which had been left as mementos of what the place had once been, "One thing you have to do, get your rocks whitewashed." Our friend liked a cheerful color.

This was some eight years ago. Since that time some advance has been made in cultivating rural tastes, and the day of white houses, whitewashed fences, whitewashed trees, and such staring disfigurements of nature's beauties, has nearly gone by, except, with those who, thinking what always has been must be right, maintain their own opinions against any new-fangled notions.

Your correspondent who has lived 30 years in a red house suits me a shade better. But why paint his house at all? Is it not a far more agreeable object, to behold one of our old weather-washed farm houses shaded by a graceful elm, than one with enough of this durable red paint sticking to it to remind one of a tannery?

For my part I like nature in the country, nor do I believe we can eclipse her with either paint or whitewash. Our wealthy cit gets his country seat, and the first thing he does, if he has money to spare, (or if he has not, for other purposes) is to cut down a graceful natural hedge of sweet briar, barberry or privet, perhaps a fine tree, to make room for an expensive wall, well plastered and capped; turning our grateful shaded lane into a glaring street. True, the stonework, at first glance, excites the admiration of some and the notice of all. But is it really an improvement on unmolested nature? Walls and fences in their

places must be had, they are necessary evils; but are they not better concealed than forced into our vision to the exclusion of more agreeable objects.

Though there is no accounting for tastes, they undoubtedly can be cultivated and improved; and we thought so the other day when we saw our neighbor from the West, building on a lot lately cleared of every vestige of a tree, intending to take down the old house shaded by tall buttonwoods. On our remonstrating with him on his barbarism, he replied, "When I am in a cleared country, I don't like to live in the woods!"

If our cheerfully disposed friends would venture to try some modest, unattractive color (if they wish one suggested, let them imitate the old unpainted farm house) and should they at the end of the year find it did not suit the complexion of their feelings, and that they were disposed to be gloomy, then we must refer them to the new discoveries of the Jersey Man. Comp. of White Zinc Paint, while we shall be content to keep in the shade and thereby save our dull eyes.

I intended to have said a word to your Newton correspondent about plums, but fear I have trespassed on your columns. After trying salt, salt mud, paving, syringing, et cet., on two dozen trees for ten years without success, for the last two years we have scattered lime over the trees, covering some of the plums entirely. Last year we saved half a bushel.

I saw last autumn a piece of cotton that had been placed around an elm tree, filled with thousands of insects, many of them alive. This without doubt is the most effectual plan for preventing the ravages of the canker worm. J. H., of the market, has a plan of putting a roll of cotton batting around the trunk of the tree. He finds it filled with the eggs of the insect. By this method he has saved most of the fruit on a Bulmar Washington. S. W.

Brookline, Oct.

"ONE" OF THE NEW HAMPSHIRE GIRLS.

A correspondent of the *Journal* relates the following:—

"While on a visit to my friends in New Hampshire the past week, I had the pleasure of an introduction to Miss Rosina Delight Richardson, the only daughter of Mr. Nathaniel and Mrs. Mary Richardson, (of East Alstead, Cheshire county, N. H.) Miss Rosina is nineteen years of age, is 5 feet 3 1-4 inches in height, measures 5 feet 4 1-2 inches around the waist, (6 feet 2 inches around the hips,) 22 inches around the arm, above the elbow, 14 inches around the arm below the elbow, and 2 feet 10 inches in a straight line across the shoulders. At birth she weighed 6 pounds, at 5 years 148 pounds, at 15 years 365 lbs., and now, at 19 years of age, she weighs 478 lbs. On estimating the quantity of cloth in her clothing when dressed for a ride on a winter's day, we found it to contain 98 1-2 yards of 3-4 yard wide cloth.

"She has brown hair, dark blue eyes, is of fair complexion, and has what phrenologists would call a well-balanced head, the perceptive organs predominating. She can knit, spin, weave, make a shirt, or a batch of bread, is a good singer, and plays the piano with taste and skill—is considered one of the best scholars in the town where she resides—is courteous and affable, and lively in conversation, and evinces a general knowledge which might raise a blush on the cheek of some of our city belles."

WINTERING CATTLE AND HORSES.

Owing to the great drought the past summer, in many parts of the country, winter feed will be exceedingly scarce, and the most rigid economy will be necessary to enable many farmers to carry their ordinary stock through the winter. What is the cheapest method of wintering cattle, sheep and horses? always an interesting question, becomes now a most important one; and though we by no means pretend arbitrarily to answer it, yet we will endeavor to throw out a few hints that may be useful. We would premise that no particular method can be laid down, that will be applicable to all cases; the climate, locality, nature of the crops grown, and prices obtained for them, interfere with any such calculations. A more serious drawback, however, is the deplorable ignorance of us all on the subject of nutrition; for were the principles of nutrition well understood, it would be easy to alter our modes of feeding to suit circumstances, and so keep the animals in the best and most economical manner.

Different breeds of animals doubtless require different amounts of food; yet, as a general rule, it may be stated that animals require an amount of food in proportion to their weight. That is to say, an animal weighing 1200 lbs. would require twice the amount of food per week as one weighing 600 lbs., other things being equal. (*a.*) More food, too, is required in cold than in temperate weather—more when the animal is worked than when doing nothing. Also, cows giving milk or when in calf, and young animals, require more than an animal of the same weight in a perfectly normal state. If, too, we wish an animal to lay on fat, we must give more food—or rather the same quantity or bulk of food, but of a more nutritious quality—than would be necessary to keep it in a normal condition, or without increasing or decreasing in weight.

The amount of food necessary per week to keep an animal in a normal condition under the most favorable conditions of warmth, is not accurately ascertained. The amount of food, however, which animals eat when given *ab libitum*, depends to a great extent on the per centage of *available non-nitrogenous* substances it contains, and not on the nitrogenous. (*b.*) Thus, an animal fed on oilcake, peas or beans, and clover hay, will eat nearly three times as much nitrogen as when fed with corn meal, hay, &c., though it is probable that the amount of available non-nitrogenous substances eaten is pretty much the same in either case. The advantage, therefore, in feeding a highly nitrogenous substance, is not in the less amount required by the animal, but in the increased value of the manure and the increased quantity of fat a given amount of non-nitrogenous food will produce, when eaten in conjunction with nitrogenous substances. We are, however, by no means to suppose that the *rate of increase* is in *exact proportion* to the per centage of nitrogen in the food, for it is not; *rapidity* of increase being attained only at an increased proportional consumption of nitrogenous substances.

By *available* non-nitrogenous substances, we mean such substances as sugar, starch, oil, gum,

&c., which are readily dissolved in the stomach, and easily assimilated; and not such substances as woody fibre, which, though a non-nitrogenous substance, and composed precisely of the same elments as sugar, &c., is not available as food, being incapable of solution in the stomach, and is passed through the body of the animal unchanged.

In providing our store stock with food, especially in a season of scarcity, our object will be to give them a sufficient amount of available non-nitrogenous substances in the least expensive form. That is, leaving out every other relative question, such as value of manure and increase of animal, and aiming only at keeping the animals in a normal condition without work, we should prefer those foods, the price being the same, which contain the most sugar, starch, &c., supplying the necessary bulk with some cheap substance, such as straw.

The prices of some of the substances used as food for cattle, taking Rochester wholesale prices as the basis of calculation, will be an indication of the value practical farmers put upon them. We give the price per ton; for it is weight, and not bulk, that we desire in purchasing food, or in estimating its value.

Bran, at 7 cts. ℔ bushel of 40 lbs.	$14,00	℔ ton.
Shorts, at 9 cts. ℔ bushel of 14 lbs.	12,86	"
Coarse middlings, at 14 cts. ℔ bushel of 20 lbs.	14,00	"
Fine " at 20 cts. ℔ bushel of 27 lbs.	14,07	"
" " at 30 cts. ℔ bushel of 34 lbs.	17,64	"
Indian corn, at 60 cts. ℔ bushel of 60 lbs.	20,00	"
Oats, at 38 cts. ℔ bushel of 32 lbs.	23,75	"
Oilcake	20,00	"(c)

Had we complete analyses of these substances, it would be easy to decide accurately which would be the cheapest food for the purpose. We have no doubt, however, that Indian corn contains much the most *available* non-nitrogenous matter, and that 100 lbs. of ground corn meal mixed with the required bulk of cut straw, will be of more avail in sustaining animal life during the winter than any other food that can be obtained at the same price. We have no doubt, too, that horses can be kept in the same way, at a much less cost than feeding them on hay. If, however, they be worked much during winter, they would require a more nitrogenous food, to supply the wear and tear of muscles, and a little oilcake meal, pea meal, or oat meal, might be mixed with the cut straw, &c.—instead of, or in addition to the corn meal—with advantage.

Boussingault estimates, from experiments and chemical analyses, that 100 lbs. of good meadow hay may be replaced by

Bran	85 lbs.	Peas	27 lbs.
Oats	68 "	Potatoes	280 "
Barley	65 "	Carrot	382 "
Maize	59 "	Wheat straw	426 "
Rye	77 "	Oat straw	383 "
Linseed cake	22 "	Barley straw	460 "
Beans	23 "	Pea straw	64 "

If this table of equivalents can be relied upon, it appears that 100 lbs. of hay is equal to 426 lbs. wheat straw, and that 22 lbs. of oilcake is equal to 100 lbs. of hay, 68 lbs. of oats, 58 lbs. of bran, &c. &c. Boussingault found that his 17 horses, averaging 1,070 lbs. in weight, eat and did well on a ration of 33 lbs. hay per day, working eight hours regularly every day. To obtain the same amount of nutritious food in straw, a horse must eat 165 lbs. of straw per day—a feat he is incapable of performing; but if we give him 30 lbs. of straw, equal to 6 lbs. of hay; 5 lbs. oilcake, equal to 22 lbs. of hay; and 3 lbs. corn meal, equal to 5 lbs. hay; he will receive the same amount of nutritious elements, and in about the same bulk, while the cost of wintering him in this way would be considerably reduced.

By carefully studying the price of substances used as food, and their relative value, most farmers may save considerable expense in keeping their animals, not by stinting them, (no farmer can afford that,) but by using that food which contains the most nutriment for a given cost.

Remarks.—We copy the above excellent and seasonable article from the *Genesee Farmer*, published at Rochester, N. Y., and upon which we take the liberty of making an occasional remark. The article is worthy of careful perusal.

(*a.*) According to our observation, the idea that animals require food in proportion to their weight, is not correct; it may be so as a "general rule," but the exceptions are numerous. Side by side, we have cows, where the lighter ones have for several years consumed more food than those heavier, although all are fed upon the same kind of food. A horse under the same roof weighing between eleven and twelve hundred pounds kept fat upon a less quantity of food than one weighing about nine hundred. Lean and light men we believe, as a general rule, eat more meat than those who are fleshy, whether they require it or not.

(*b.*) The word *nitrogen* has so much importance in this article that it may not be improper to say something of its properties and relations. Nitrogen composes about 80 per cent. of the atmosphere, and is widely diffused throughout nature. It is that element to which may be attributed the chief enriching quality in manure, and is the basis of the production of ammonia. Manures will be found rich, in proportion to their quantity of nitrogen, or their power of forming nitrates. It is destitute of color, taste or odor, and is a little lighter than common air; absorbs water in very small quantities. Nitrogen forms an important part in the growth of both animals and plants. It is abundant in the sap of young plants, and fixes itself, as the plant approaches maturity, in greatest abundance in the green leaves and in the seeds.

(*c.*) These articles would be somewhat higher in New England. For instance, oilcake is selling at $27,00 the ton; southern corn at 80 cents, and the shorts, &c., in proportion.

Apples.—The apples left with us by Mr. J. Harrington, from the garden of Mr. Adolphus Durant, of Lawrence, resemble Longville's Kernel, which were introduced into our orchards from the garden of the London Horticultural Society. It is a fair autumn apple, but not better than many well-known varieties now in common cultivation.

For the New England Farmer.

DR. LEE.

EDITORS OF NEW ENGLAND FARMER :—I am not a little surprised, by the strictures in your paper of this morning, upon my communication in relation to the Agricultural Fair at Pittsfield, on the 6th and 7th of Oct. last.

I spoke of the "disappointment" experienced in not having the expected address from Dr. LEE, of Washington ;—and I meant to say, that this disappointment was proportioned to the high reputation of this gentleman, for scientific knowledge of agricultural subjects, and in no manner to charge him with any fault for not being present. I only knew, that his presence was *expected*, and *waited* for, until 2 o'clock, P. M.

Dr. LEE entirely misapprehended what I said about "*gentlemen farmers*,"—when he charges me with intimating that any class of farmers are *not gentlemen*. I used the term *gentlemen farmers* in that popular sense, which embraces those who have book knowledge *only* without practical experience ;—and not as impairing their character in the least, as gentlemen the in ordinary sense of the term. One moment's reflection, by a man of Dr. L.'s intelligence, must have satisfied him of this.

In speaking of Dr. L., I used the term *scientific*, because I have been accustomed to look upon his communications as more thoroughly scientific than any others I meet—comprehending knowledge obtained from *practice* as well as *books*—this being the only knowledge of value on agricultural topics. I will not say, that a man cannot acquire much knowledge of chemistry, geology &c. &c., in his library, and thereby inform himself most perfectly in the analysis of soils—but I will say, that something beyond this is necessary to make him a complete farmer, or to enable him to teach others to be such.

It has become so common of late, in selecting speakers for public occasions, to look for those who have acquired *a far-famed reputation*, that modest, unassuming men stand no chance. I intended to communicate the idea, that these town and county meetings are fit occasions for such men to be brought forward to try their skill ;—and that men of eminence will always find opportunities enough to show off, and hearers enough to listen, without any special appointment.

Far be it from me to place Dr. LEE in a *wrong position* before the public, or to give him any just cause of offence. No man could have regretted his misapprehension of his engagement with the President of the Berkshire Society more than I did ; as no one could have been more anxious to hear his instructions. I travelled more than *one hundred miles*, almost expressly for this purpose. That the Dr. may long live and continue to do good, with all his might, is the worst wish I have for him ; and that he will heed the maxim, "think twice before he speaks once," is the best advice I can give him.

Nov. 6th, 1852.

DARTMOUTH COLLEGE.—We have received the catalogue of this College for 1852-3, illustrated with a beautiful engraving of the college buildings. The Medical students are in number fifty-two ; Undergraduates, two hundred and twenty-five, and those of the Scientific School seventeen, making a total of two hundred and ninety-four. Among the names we notice many from this State, from Maine, New York, Rhode Island, Washington, D. C., and the southern States, as well as from New Hampshire. The institution appears to be in a flourishing condition. We are probably indebted to OLIVER P. HUBBARD, M. D., for the copy received.

A CHEAP, HOME-MADE TELESCOPE.

EDS. RURAL :—In the autumn of '42, being then nineteen years of age, and naturally of a mechanical turn of mind, and having read some in different works on philosophy and astronomy, I undertook to make a cheap telescope ; and, as a knowledge of the process may not be uninteresting to all your readers, I give it for what it is worth. I bought a common convex spectacle glass of three feet focus, and a small glass one-half an inch in diameter, one inch focus, both costing 75 cents.

I then proceeded to make a tube as follows : I took a piece of two inch plank, sawed it out two inches square, put it in my lathe, and merely rounded one end, but the other end I diminished to about one and one-fourth inches. I then applied it to a fine circular saw, splitting it in two halves. Then I hollowed out each part, leaving them about one-fourth of an inch thick, and painted the inside black, with lamp-black and spirits of turpentine. I then fastened them firmly together with glue, and made another tube in the same manner about four inches long, small enough to slide closely into the large tube.

I placed the largest glass in the large end of the long tube, and the small one in the small tube near the end, then by sliding the small tube into the large one so as to bring the glasses about three feet and one inch apart, (the sum of their focal distances,) and applying my eye to the small tube, I was astonished and delighted at the clearness with which I could discern distant objects. I placed it upon a sort of standard, in such a manner that it would turn in any direction, and I could then view the planets with great facility. It is true, all terrestrial objects appeared inverted, but the eye soon became accustomed to it, and the clearness compensated for the absence of the other two glasses. On pointing it at Jupiter, I could plainly distinguish his moons but not his belts.—Saturn's rings can be seen with it, but not his moons. Venus appears like a small moon through it, presenting the different phases of that luminary. But the rocky and mountainous portions of our moon present the greatest field for observation, being the nearer celestial objects, and though I have since looked through better telescopes, there is not that difference which one would naturally suppose between a telescope costing $2, and one costing $200. Venus being now morning star, and in the best part of her obit for observation, presents a beautiful appearance.

But I will close, merely saying, that such sketches have always been of interest to me, and thinking that others of your readers might have similar phrenological "bumps," I submit it to you to lay before them or not as you think proper.—R. C. NORTON, Guilford, Chenango Co., N. Y., 1852.—*Rural New-Yorker*.